S/169/61/000/011/062/065
D228/D304

AUTHOR: Fedorova, N.I.

TITLE: Intensification of λ 10830Å emission in auroral spectral

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 11, 1961, 10, abstract 11G209 (V sb. Spektr. elektrofotometr. i radiolokats. issled. polyarn. siyaniy i siyaniy i svecheniya nochn. neba, no. 5, M., AN SSSR, 1961, 42 - 46)

TEXT: A very prolonged and intense aurora was observed at Loparskaya station (63.6°N, 126.7°E) on March 31 - April 1 and April 1 - 2, 1960. All auroral emissions are markedly intensified in the obtained spectra. The intensification of λ 10830Å emission was of greatest interest, as also in the case of the aurora of February 10 - 11, 1958, which was observed at Zvenigorod (see RZhGeofiz., no. 5, 1960, 5492). The spectrum of the aurora of March 31 - April 1, 1960, with the very intense line $^2D - {}^2P[NI]\lambda$ 10400Å, is given. To

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Intensitfication of 10830A ...

S/169/61/000/011/062/065
D228/D304

estimate the intensification of the Q-branch of the (5.2) band, its intensity was compared with that of the Q-branch of the (4.1) band. The results of measuring certain spectra are cited. The mean ratio between the intensities of the Q-branches of bands (5.2) and (4.1) in a clear sky equals 1.5 and does not exceed 1.9. The author considers that a ratio of more than 2 is caused by the superimposition of helium emission. [Abstractor's note: Complete translation].

Card 2/2

31807
S/203/61/001/005/012/028
A006/A101

3,1810

AUTHOR: Fedorova, N.I.

TITLE: On the problem of observing zero bands 1PG N_2 λ10,420 Å and the Meinel negative system N_2^+ λ 11,109 Å in aurora polaris

PERIODICAL: Geomagnetizm i aeronomiya, v. 1, no. 5, 1961, 702 - 708

TEXT: The author studied spectra of aurora polaris within a range of 9,000 - 11,500 Å for the purpose of detecting zero bands 1PG N_2 λ10,420 Å and the Meinel negative system N_2^+ λ 11,109 Å. Spectra were obtained with the aid of two СП-50 (SP-50) spectrographs with electron-optical transformers. Within the aforementioned range weak emissions were obtained, whose intensities were not in accordance either with calculated or photoelectric values observed. In the λ>9,200 Å range Meinel bands N_2^+ were not detected which belong to series $\Delta v=1$ according to the new oscillation numbering: (2-1) λ9,475 Å; (3-2) λ9,780 Å; (4-3) λ 10,105 Å and (5-4) λ 10,540 Å. The investigation shows that zero bands 1Pg N_2 and bands of the Meinel system N_2^+ are not the most intensive ones in the systems investigated. Their intensity in weak auroras is in any case considerably below that of hydroxyl emission in corresponding regions. The author thanks

Card 1/2

On the problem of observing zero bands ...

V.I. Krasovskiy for his assistance and supervision. There are 2 figures, 1 table and 21 references: 5 Soviet-bloc and 16 non-Soviet-bloc.

ASSOCIATION: Institut fiziki atmosfery AN SSSR (Institute of Physics of the Atmosphere, AS USSR)

SUBMITTED: August 4, 1961

Card 2/2

S/049/62/000/004/002/003
D207/D301

AUTHOR: Fedorova, N.I.

TITLE: Twilight fluorescence of λ 10830 Å helium emission

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya geofizicheskaya no. 4, 1962, 538 - 547

TEXT: The author reports observations carried out in 1961 and analyzes these observations together with the 1960 results. The auroral He I line at 10830 Å was recorded with an infrared spectrograph СП-50 (SP-50) fitted with an image converter and an intensity recorder described by L.M. Kotlyar and constructed by V.N. Sidorov. The He I line appeared only at twilight (evening and morning). At night it was not observed even during aurora. The observations of the line did not correlate with any particular auroral emission or form. The lower and upper boundaries of the layer emitting the 10830 Å line were estimated as 150 - 170 km and about 500 km, respectively. The main concentration of the emitting He atoms occurred at 200 - 300 km. Acknowledgements are made to V.I. Krasovskiy for directing this work and V.G. Trunov and V.N. Sidorov for help

Card 1/2

Twilight fluorescence of ...

in observations and analysis of the data. There are 4 figures, 1 -table and 18 references: 12 Soviet-bloc and 6 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: N.I. Fedorova, Planet, Space Sci., no. 5, 1961; N.N. Shefov, Planet. Space Sci., no. 5, 1961; C.E. McIlwain, J. Geophys. Res., 65, no. 9, 1960; J.W. Chamberlain and G. Sagan, Planet Space Sci., no. 2, 1960.

ASSOCIATION: Institut fiziki atmosfery, Akademiya nauk SSSR (Institute of Physics of the Atmsophere, Academy of Sciences of the USSR)

SUBMITTED: April 15, 1961

Card 2/2

[illegible]

[illegible]erova, N. I. (Candidate of physics and mathematics

TITLE: Investigations on the physics of the upper atmosphere [Report of the regular All-Union meeting on the physics of the upper atmosphere, held in Moscow from [illegible] 23 May 1963]

SOURCE: AN SSSR. Vestnik, no. 8, 1963, 113-115

TOPIC TAGS: satellite instrumentation, terrestrial magnetosphere, ionosphere electric field, Mars-1, space station, night airglow.

ABSTRACT: From 21 to 23 May 1963 a conference on the physics of the upper atmosphere was held at the Institut fiziki atmosfery* Akademii nauk SSSR (the Institute of Atmosphere, Academy of Sciences SSSR). Yu. I. Gal'perin described [illegible] used on satellites for recording electrons and protons of [illegible] streams of high-energy positive ions were detected with these [illegible] at altitudes of 200—600 km. Electrons carrying energies of several [illegible] were recorded on the day side of the atmosphere at heights of more than 1000 km. K. I. Gringauz and his coworkers have studied the measurements made by the "Mars-1" space station at the point at which the terrestrial

Card 1/2

AP5005492

... gas envelope intersects the extreme belt of charged particles. They de... plasma streams in interplanetary space beyond the earth... field of the ionosphere, measured by means ... carried on geophysical rockets of the Academy of Sciences, was found to ... V. G. Istomin reported on the great quantity of ... detected by radio-frequency mass spectrometer at the height of 250 km. The electrical energy of these ions is higher than their thermal energy. E. I. Mogilevskiy proved the impossibility of capturing solar plasma in the terrestrial magnetosphere without ... magnetic field within the corpuscular stream. A. I. Yershkovich reported on the role of solar cosmic rays in the formation of the electronic component of the radiation belts of the earth. Yershkovich observed that an electron stream with an energy of 200—400 ev could have resulted from the β-decomposition of neutrons. A study of aurora spectra has shown that an emission intensity with an excitation energy of more than 12.5 ev decreases sharply, but increases again at 25 ev. An investigation of the night-airglow line 5563 Å by P. I. Shcheglov indicated an intensity variation. The line intensity increases in the direction of the sun and the ecliptic and is greater in the morning than in the evening.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 06Sep63 ENCL: 00

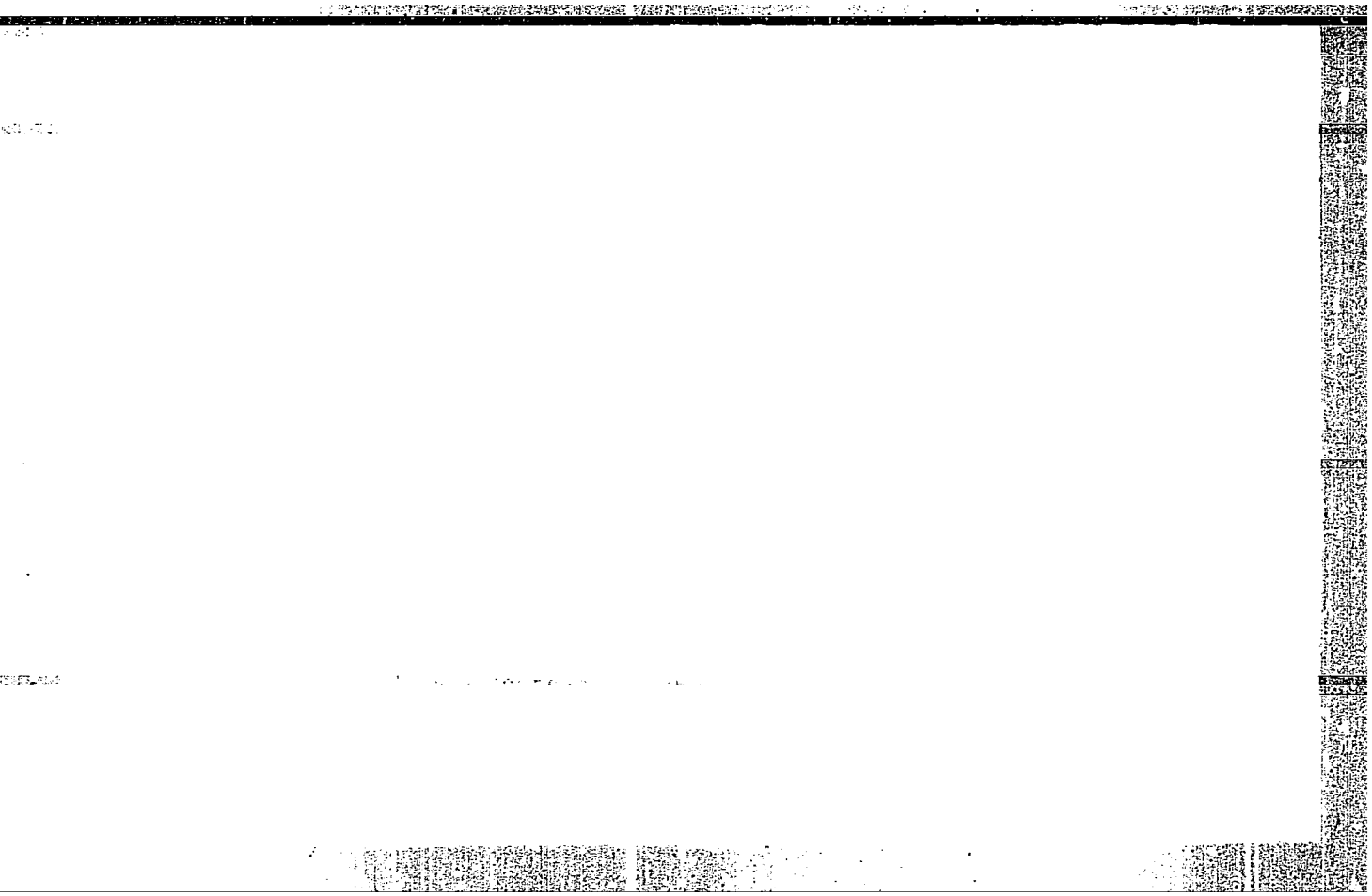
SUB CODE: AS NO REF SOV: 000 OTHER: 000

Card 2/2

FEDOROVA, N.I., kand. fiziko-matem. nauk

Problems of the upper atmosphere. Zem. i vsel. 1 no.4: 70-73 Jl-Ag '65. (MIRA 18:12)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00041271(



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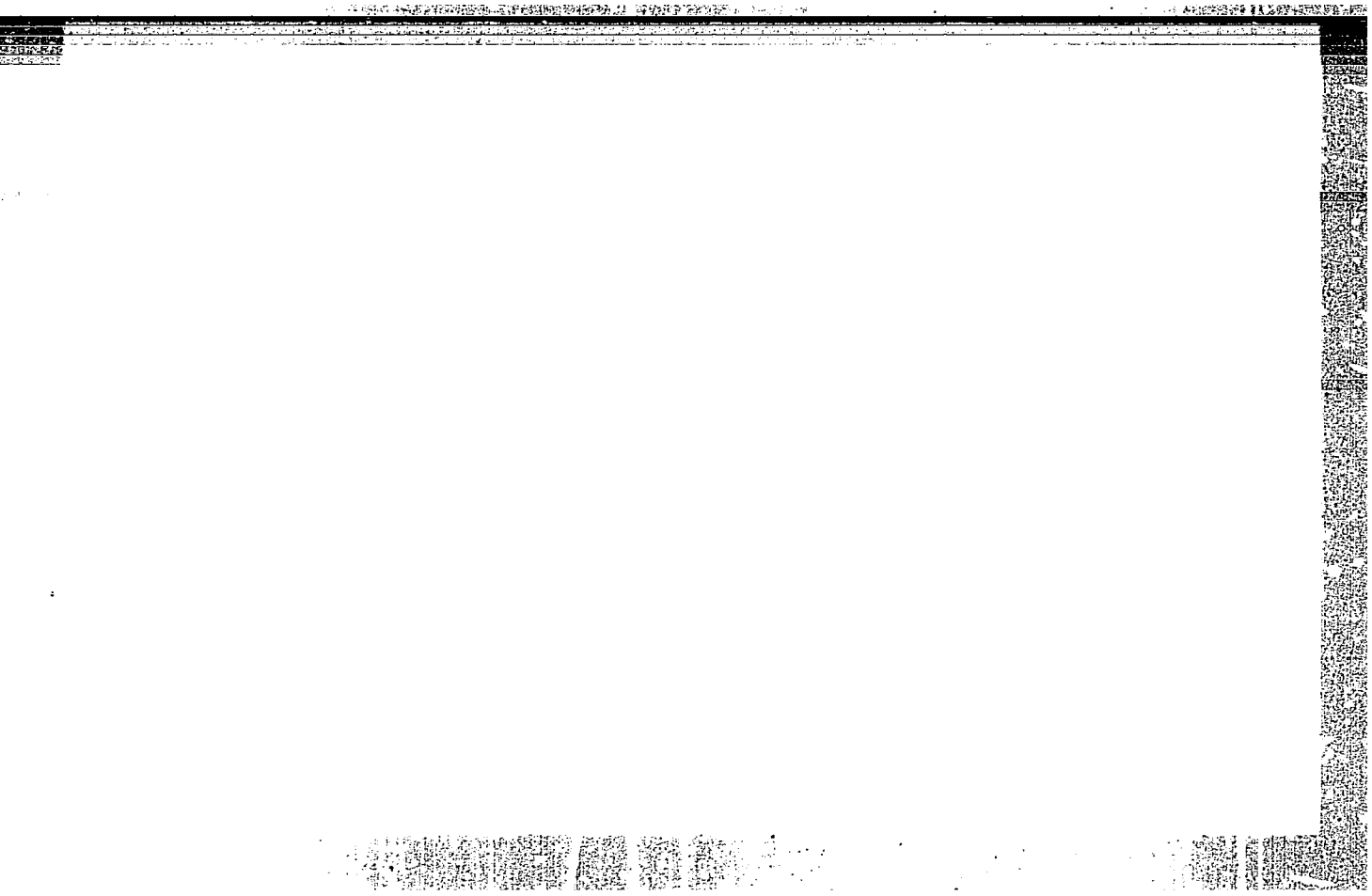

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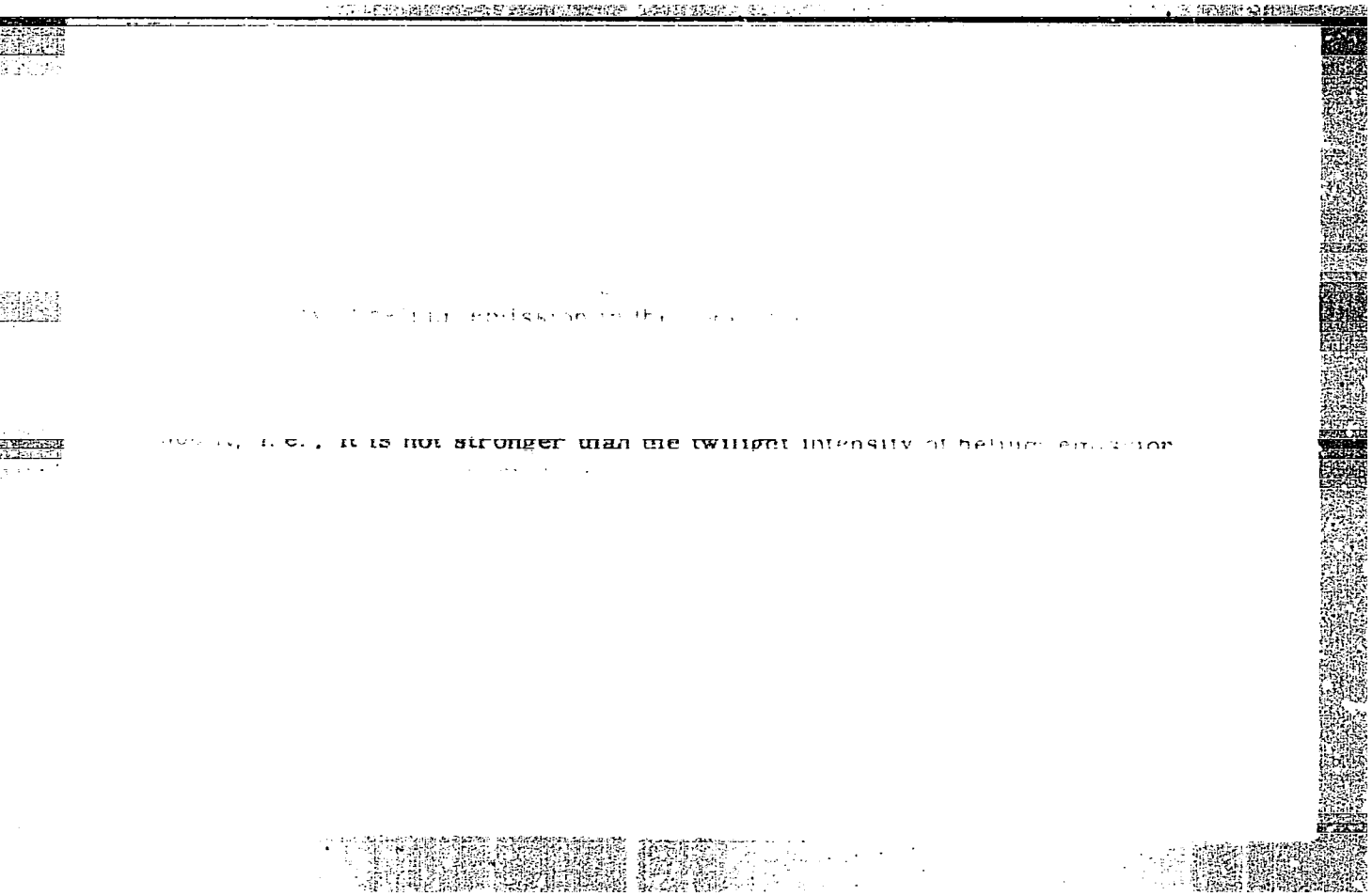
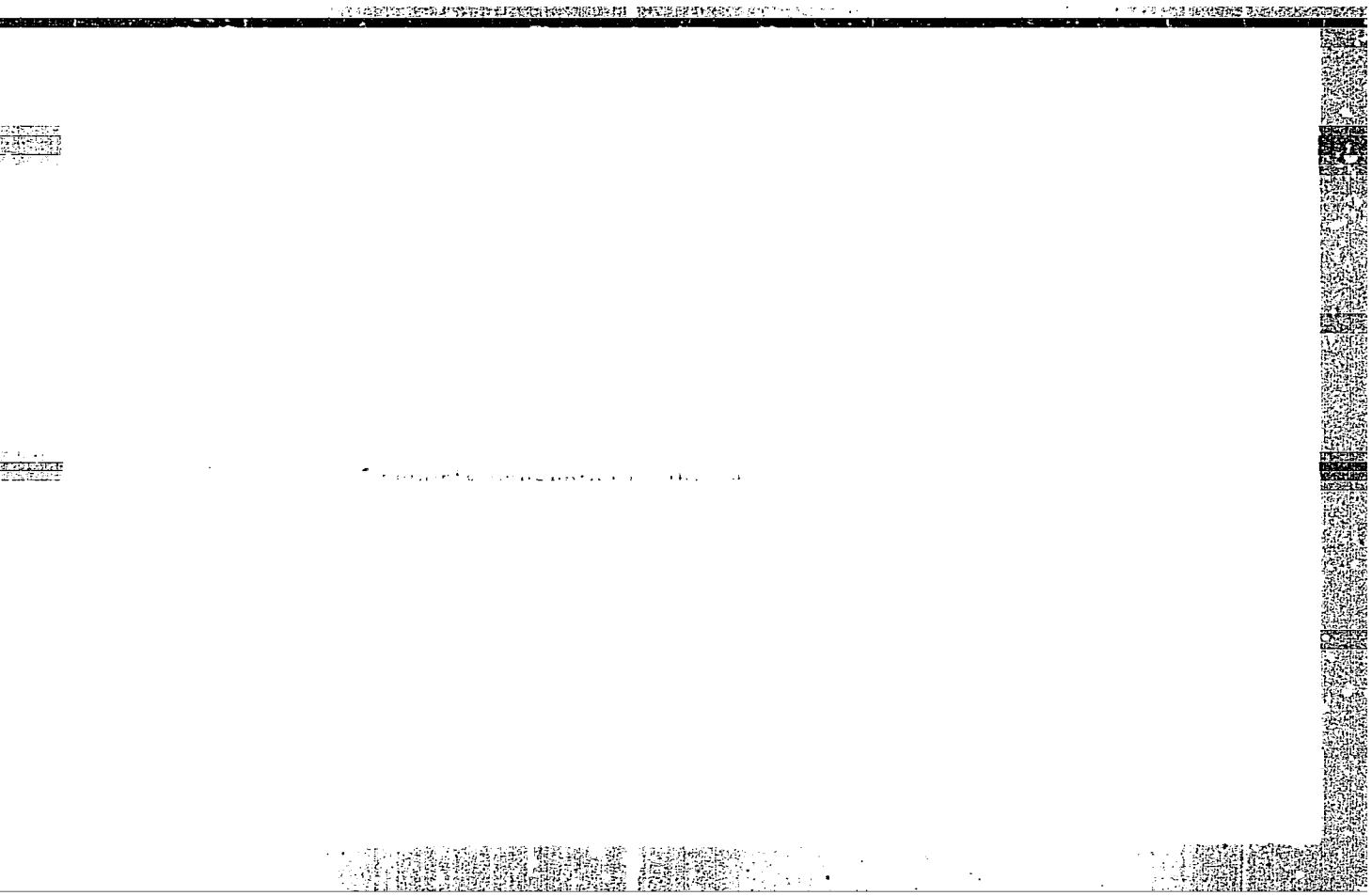
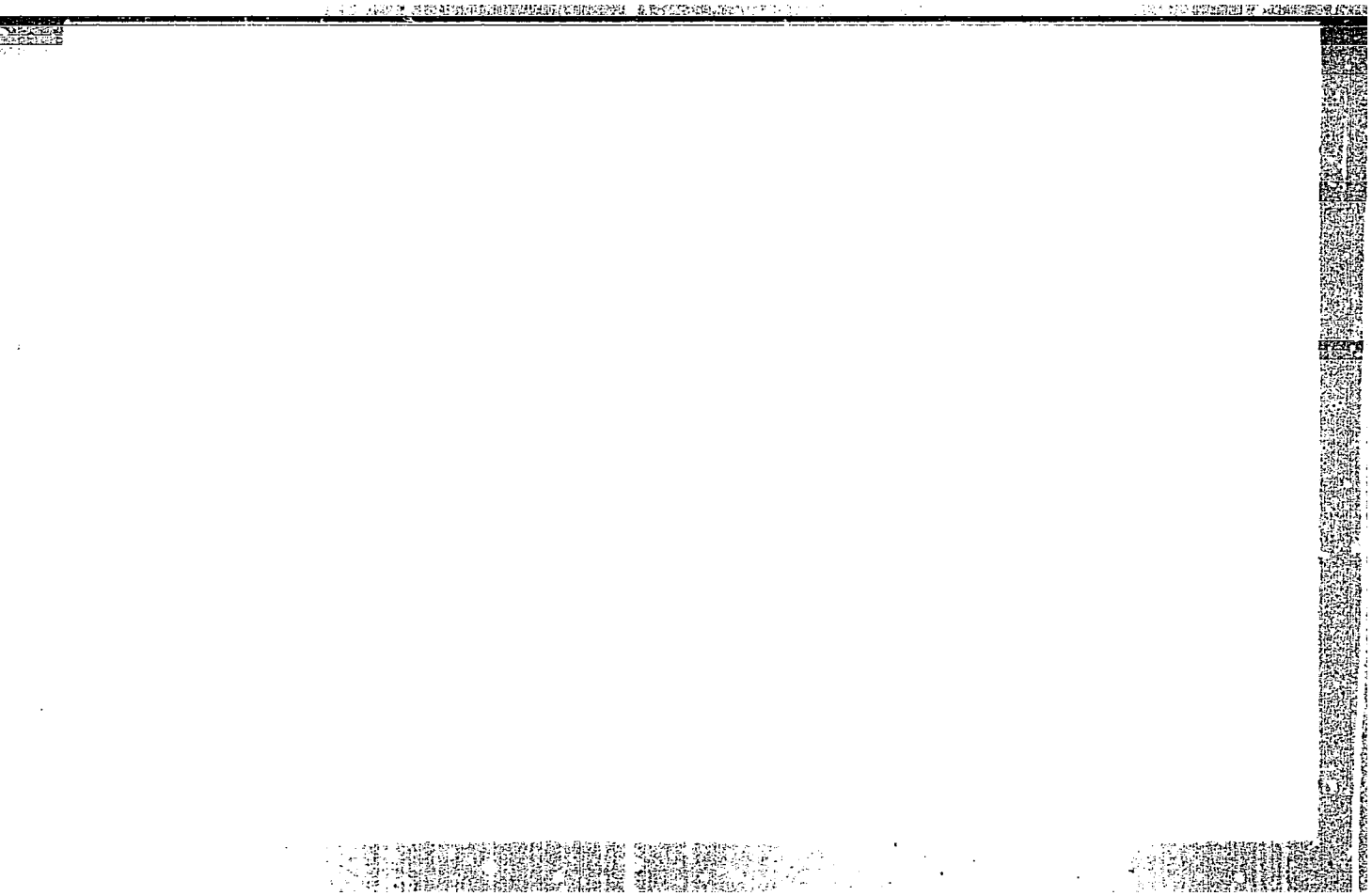
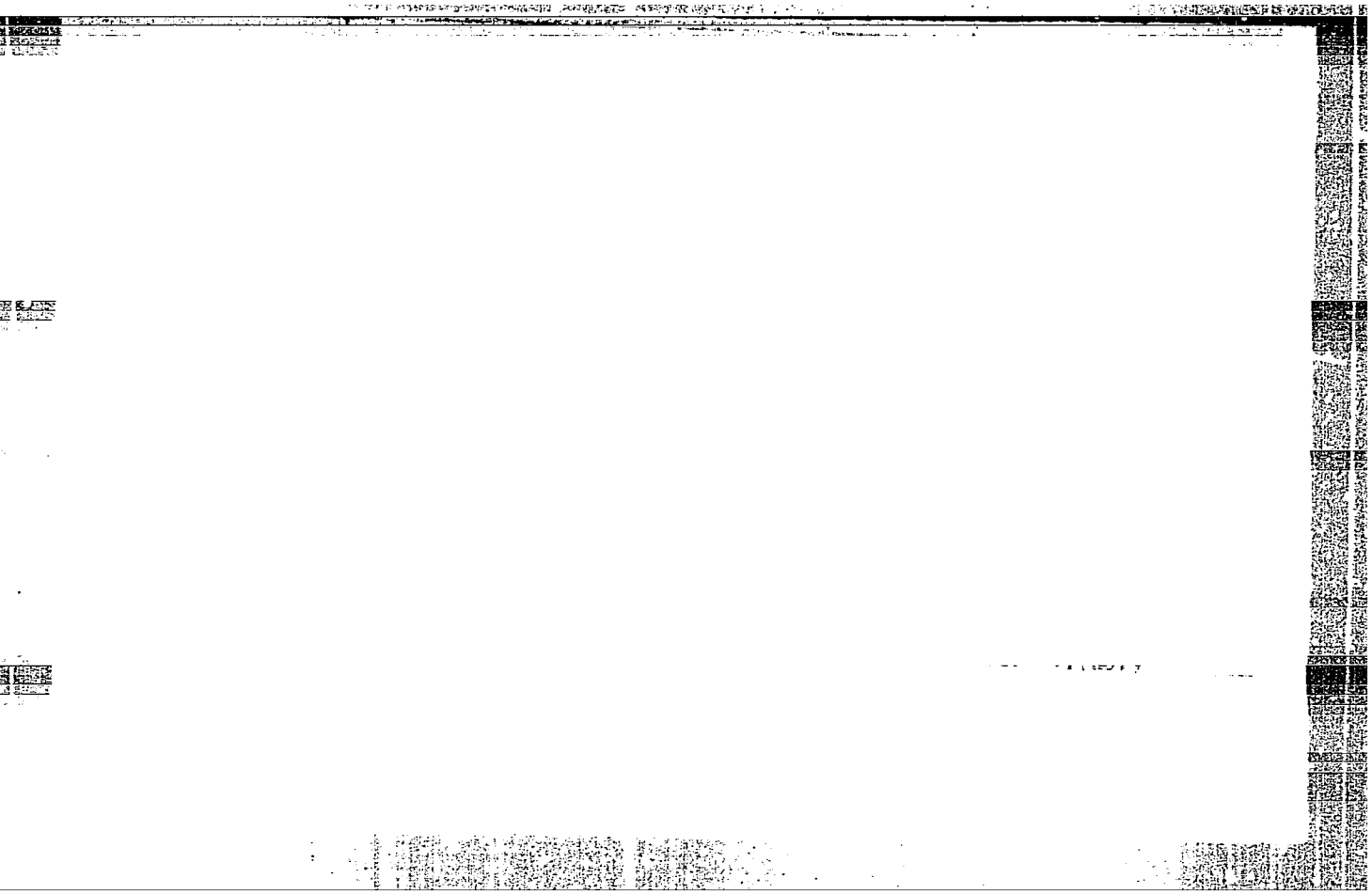






APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00041271(



ACC NR: AP5024187 SOURCE CODE: UR/0384/65/000/004/0070/0073

AUTHOR: Fedorova, N. I. (Candidate of physico-mathematical sciences)

ORG: none

TITLE: All-Union Conference on the Physics of the Upper Atmosphere

SOURCE: Zemlya i vselennaya, no. 4, 1965, 70-73

TOPIC TAGS: meteorologic[17] conference, atmospheric thermodynamics, solar activity, aurora

ABSTRACT: The regular All-Union Conference on the Physics of the Upper Atmosphere took place in Moscow on 5-7 April 1965. The conference heard about 40 papers dealing with the dynamics and the heat balance of the upper atmosphere, studies of the properties of radiation in the upper atmosphere during periods of decreased solar activity, twilight emission, laboratory modeling of auroral spectra and determination of the constants of the elementary processes causing the excitation of emissions in the upper atmosphere, the morphology of auroras, etc. Orig. art. has: 4 figures.

SUB CODE: 04 / SUBM DATE: none

Card 1/1

FEDOROVA, N.K.

Strychnine nitrate treatment of acute barbiturate poisoning. Vrach. delo no.8:144-145 Ag '63. (MIRA 16:9)

1. Terapevticheskoye otdeleniye (zav. - V.S.Tutkevich) Shostkinskoy mezhrayonnoy bol'nitsy No.1.
(BARBITURATES—TOXICOLOGY) (STRYCHNINE)

FEDOROVA, M. L.

"The Use of Soviet Neoplasmochin in Cases of Gamontocarriers of Tropical Malaria", Med. Paraz. i Paraz. Bolez., Vol. 17, No. 4, pp 318-19, 1948.

FEDOROVA, N. M.

"Properties of Algebraic Curves and Surfaces in Conjunction with a Generalization of Carnot's Theorem and the Theorem Converse to the Latter." Rostov State U imeni V. M. Molotov, Rostov-on-Don, 1955. (Dissertation for the Degree of Candidate of Physical and Mathematical Sciences)

SO: Knizhnaya Letopis', No. 22, 1955, pp 93-105

FEDORCVA, T. M.

Dissertation defended at the Institute of Physiology imeni I. P. Pavlov for the academic degree of Candidate of Medical Sciences: (1962)

"Significance of Several Functional Tests in Early Diagnosis of Hypertonic Disease."

Vestnik Akad Nauk, No. 4, 1963, pp. 110-145

ABRAMOVA, Z.M.; FEDOROVA, N.M.

Conference on methods for station research of soil processes. Pochvovedenie no.6:111-114 Je '63. (MIRA 16:7)

(Soil research—Congresses)

Fedorov, N.F.

46-3-5/15

AUTHORS: Mikhaylov, I.G. and Fedorova, N.M.

TITLE: Absorption of Large Amplitude Ultrasonic Waves in Structurated Solutions (Pogloshcheniye ul'trazvukovykh voln bol'shoy amplitudy v strukturirovannykh rastvorakh)

PERIODICAL: Akusticheskiy Zhurnal, 1957, Vol.III, Nr 3, pp.239-242 (USSR)

ABSTRACT: The propagation of ultrasonic waves of large amplitude in liquids is of major interest. It was shown in (Refs.1 and 2) that the coefficient of absorption of ultrasonic waves depends on the intensity of ultrasound. So far this effect has only been observed in some pure liquids. The present authors have studied the absorption of ultrasonic waves of large amplitude in solutions having structural viscosity. It might be expected that in this case at large intensities a break up in the structure of the solution would occur. This would necessarily have an effect on the coefficient of absorption as a function of intensity of ultrasound. Thus, a study of the absorption of ultrasonic waves of finite amplitude may lead to information on the interactions between molecules of structurated solutions. For these reasons the absorption of ultrasonic waves of finite amplitude was measured in solutions of a number of polymers (polyizobutylene

Absorption of Large Amplitude Ultrasonic Waves in Structurated Solutions.

in benzene and perbutane in toluene). The measurements were carried out at a frequency of 5 Mc/s. It was found that structural changes occur at a certain threshold intensity which depends on the nature of the dissolved polymer and the solvent. Fig.4 shows the coefficient of absorption as a function of intensity for benzene and a 10% solution of polyizobutylene MB 98 000. Curve 1 corresponds to benzene and Curve 2 to the polyizobutylene solution. As can be seen, in the case of benzene the coefficient of absorption continually increases with intensity. The same applies for the solution of polyizobutylene (up to the threshold intensity). For intensities above the threshold intensity absorption is determined by the degree of structural break up of the solution. It is pointed out that the coefficient of absorption for ultrasonic waves begins to depend on intensity already at voltages of the order of 150-200 V across the radiating quartz crystal.

46-3-5/15

Absorption of Large Amplitude Ultrasonic Waves in Structurated Solutions.

There are 4 figures and 5 references, 3 Russian and 2 English.

ASSOCIATION: Leningrad State University (Leningradskiy gosudarstennyy universitet)

SUBMITTED: July 25, 1956.

AVAILABLE: Library of Congress.

Card 3/3

FEDOROVA, N. M.

MIKHAYLOV, L. G. and FEDOROVA, N. M.

"Absorption of Ultrasonic Waves of Finite Amplitude in Composite Solutions."

paper presented at the 4th All-Union Conf. on Acoustics, Moscow, 26 May - 6 Jun 58.

AUTHORS: Mikhaylov, I. G., Fedorova, N. M. SOV/54-58-3-9/19

TITLE: Propagation of Ultrasonic Waves in Polymer Solutions (Rasprostraneniye ul'trazvuka v rastvorakh polimerov)

PERIODICAL: Vestnik Leningradskogo universiteta. Seriya fiziki i khimii, 1958, Nr 3, pp 78-88 (USSR)

ABSTRACT: The authors investigated the propagation of ultrasonic waves of small and of great amplitude in concentrated polymer solutions; simultaneously they measured the structural viscosity of these solutions. The solutions of poly-isobutylene in gasoline; of perbutane in toluene, acetone, and bromobenzene; of polystyrene in toluene and bromobenzene were examined. It turned out that the absorption in these solutions differs only little from the absorption in the pure solvents. Substances of a bulk viscosity as low as possible were employed as solvents. Data on poly-isobutylene solutions are given in table 1. It can be seen that relaxation occurs if the concentration is increased. The same phenomenon can be observed in a solution of perbutane in toluene as well (Table 2). This corresponds to the calculation by Gotlib and Vol'kenshteyn. When the intensity is increased

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it does not vary linearly as the distance any more. This fact leads to the conclusion that the absorption coefficient itself is dependent on the intensity. In the case of intensities higher than the so-called threshold intensity the magnitude of the received pulse depends on the duration of irradiation. Hence, it can be derived that at intensities higher than the threshold intensity a change in the capability to absorb takes place apparently connected with a change of the structure of the solution. The time-dependent change of the received pulses has been observed to go on in perfectly the same way on the occasion of small and high amplitudes (Fig 9). The change of the absorbtion power of the medium depends on the viscous loss because of the destruction of the structure of the solution. Furthermore it was found out that after having stopped the ultrasonic irradiation the initial acoustic properties of the solution are completely established. This shows that at intensities above the threshold intensity tixotropic phenomena occur. They are connected with the rupture of the Van der Waals nodes in the polymer lattice. The amount of the threshold intensity depends only on the nature of the dissolved polymer and of the solvent, but neither on the concentration nor on the molecular weight of the polymer.

All results indicate the possibility of applying ultrasonic methods for the investigation of the structure of polymer solutions and for the determination of the energy of the node bindings. There are 9 figures, 2 tables, and 10 references, 6 of which are Soviet.

SUBMITTED: March 5, 1958

MIKHAYLOV, I.G.; FEDOROVA, N.M.

Propagation of ultrasonic waves in polymer solutions [with summary in English]. Vest. LGU 13 no.16:78-88 '58. (MIRA 11:11)
(Ultrasonic waves) (Polymers)

S/046/63/009/001/009/026
B104/B186

AUTHORS: Mikhaylov, I. G., Fedorova, N. M.

TITLE: Study of structure variations of concentrated solutions of polymers by means of ultrasound

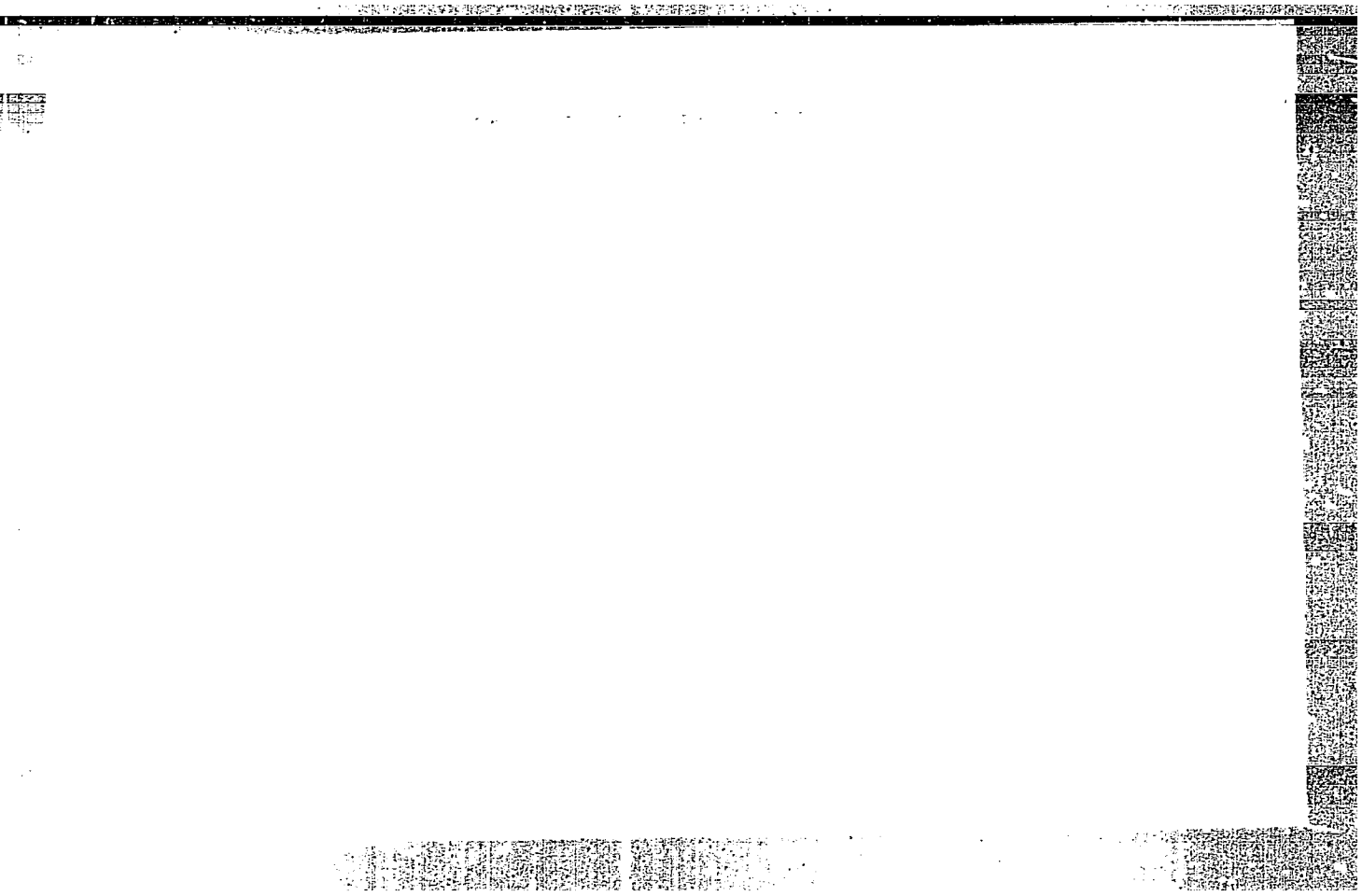
PERIODICAL: Akusticheskiy zhurnal, v. 9, no. 1, 1963, 50-53

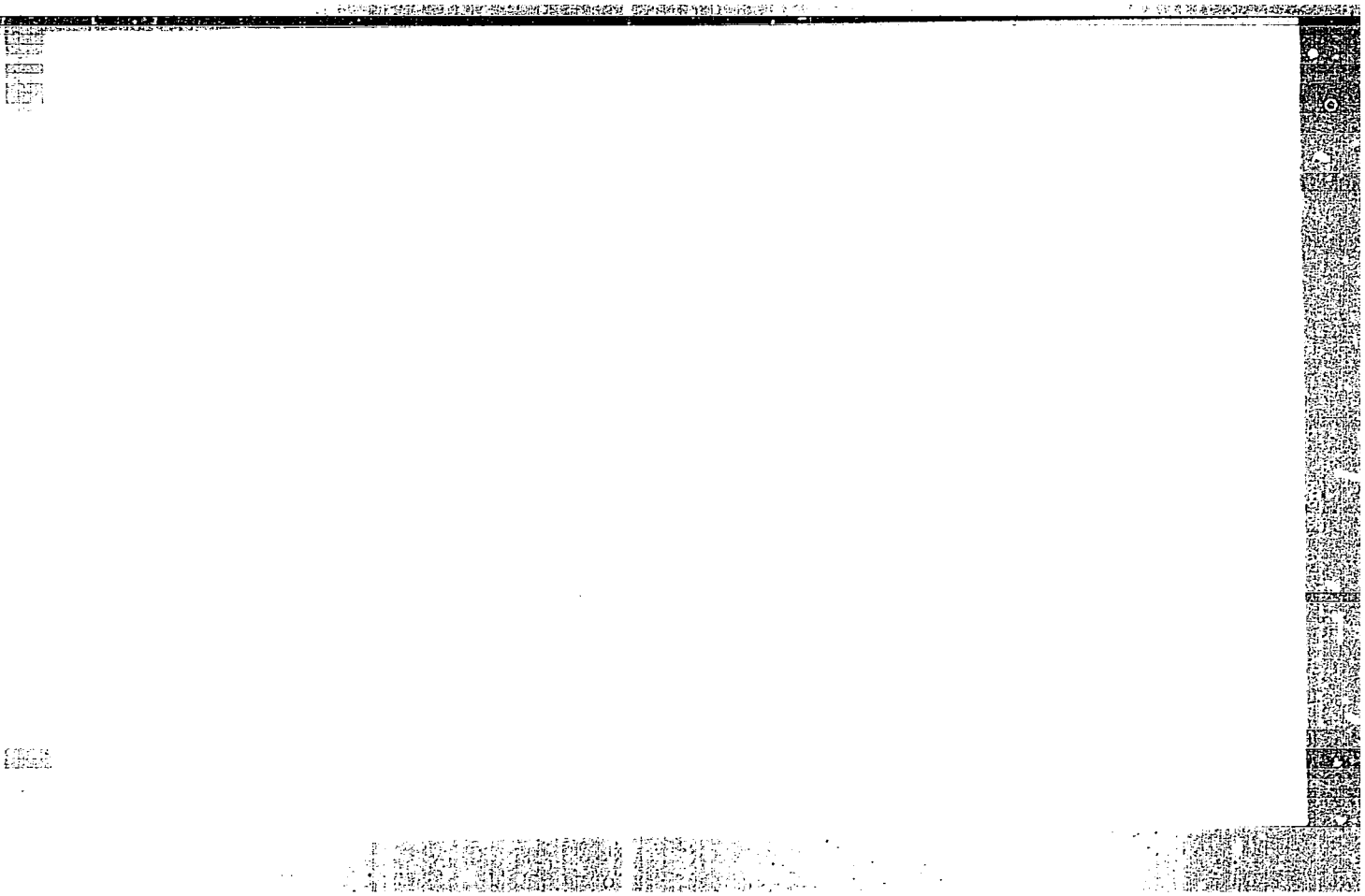
TEXT: In previous papers (Akust. zh., 1957, 3, 3, 293-242; Vestn. LGU. Ser. fiziki i khimii, 1958, 16, 3, 78) the authors showed that ultrasound may be used to change the structure of crosslinked systems as well as to measure these variations. The influence of temperature on the structure of concentrated polymer solutions was investigated by studying the temperature dependence of $\Delta(\alpha/\nu^2) = \alpha/\nu^2 - \alpha_0/\nu^2$ in solutions of polyisobutylene in gasoline between 0 and 60°C. α is the absorption coefficient of the solution, α_0 that of the solvent. It is shown that the absorption coefficient of ultrasonic waves is a characteristic most sensitive to structure variations. The intense variations of the absorption coefficient in the temperature interval can be explained only

by variations of the structure. It is assumed that structure variations occurring due to intense ultrasonic irradiation or due to temperature variations are related to variations of the number of Van-der-Waals sites in the polymer lattice. It is shown that the structure variations are not produced by cavitations. There are 3 figures.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

SUBMITTED: May 11, 1962





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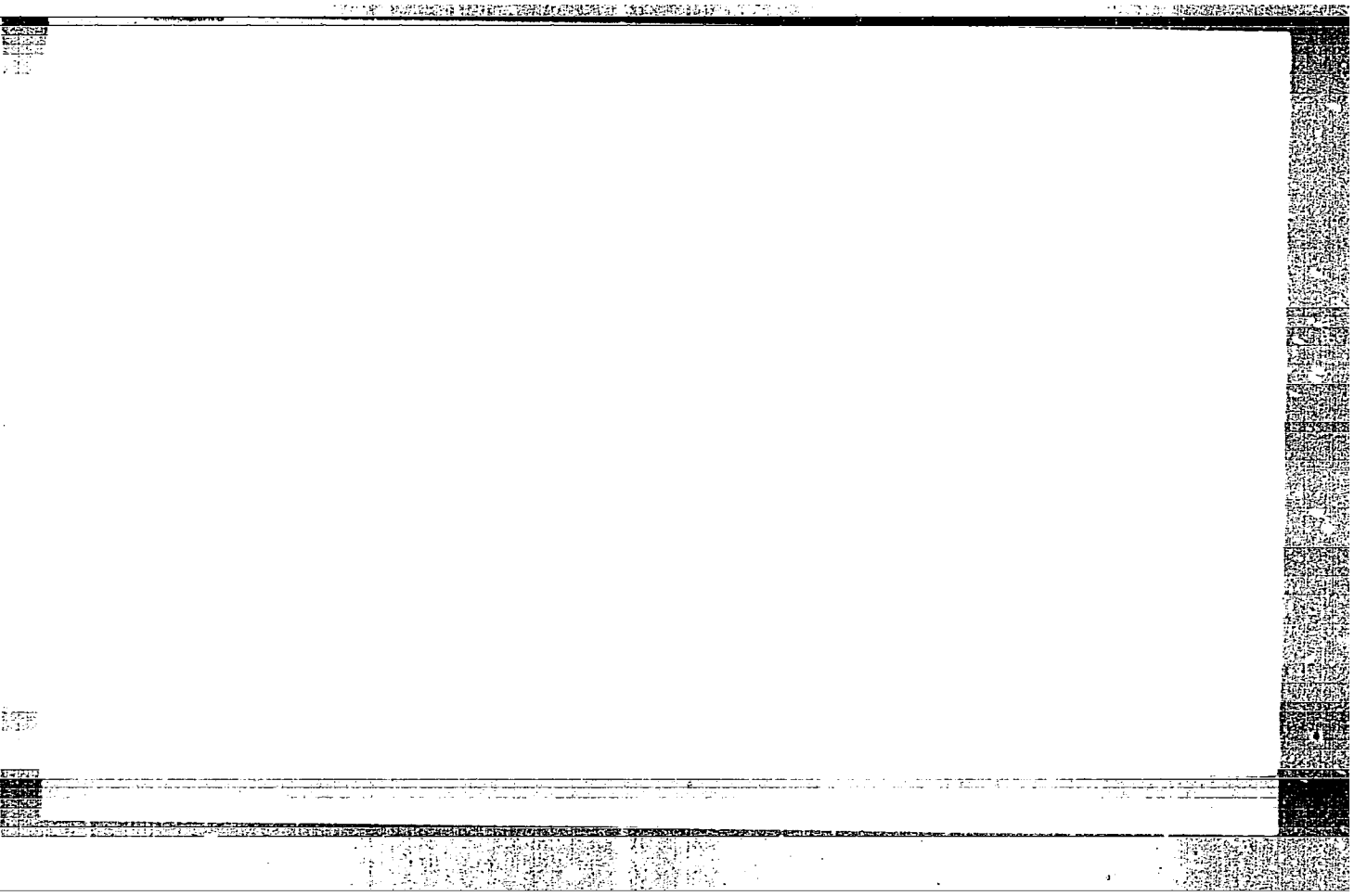

LAPSHIN, V.V.; SITNIKOVA, I.V.; RYABCHENKOV, V.N.; LIKHOBABENKO, A.P.; Prinimali uchastiye: FEDOROVA, N.M.; LASTOVA, N.A.; OSIPOVA, A.P.; KOZ'MINA, N.M.

Effect of the degree of branching of high density polyethylene on the mechanical properties of tubes produced by extrusion. Plast. massy no.5:22-26 '65. (MIRA 18:6)

FEDOROVA, N.N.

Result of treatment of eczema at the Talgi health resort. Vest. derm. i ven. 32 no.6:34-37 N-D '58. (MIRA 12:1)

1. Iz kliniki koshnykh i venericheskikh bolezney Dagestanskogo meditsinskogo instituta (dir. - dots. S. Yu. Alibekov)

(ECZEMA, ther.
mineral water baths of Talgi, Russia (Rus))

(BALNEOLOGY, in various dis.
mineral water baths of Talgi, Russia (Rus))

FEDOROVA, N.M. (Leningrad, Bol'shaya Zelenina ul., d. 15, kv.34)

Hemorrhages into the extrapleural cavity after pneumonolysis.
Vest.khir. 79 no.11:131-132 N '57. (MIRA 11:3)

1. Iz tuberkuleznoy bol'nitsy (gl.vrach-G.P.Shamritskaya)
Lengorzdravotdela na stantsii Razliv.
(COLLAPSE THERAPY
pneumolysis, with hemorrh. into extrapleural cavity (Rus)

FEDOROVA, N.N.

Late results of bilateral pneumolysis following resolved bilateral empyema. Probl.tub. 36 no.1:114-115 '58. (MIRA 11:4)

1. Iz Tuberkuleznoy bol'nitsy Lengorzdravotdela na st. Razliv (glavnyy vrach P.G.Shamritskaya, zav. khir. otdeleniyem N.N.Fedorova)

(COLLAPSE THERAPY
bilateral pneumolysis after bilateral resolved empyema, remote results (Rus))

FEDOROVA, N.N.

Development of the uterus and the time of the appearance of its congenital anomalies during the intrauterine life of man. Dokl. AN SSSR 158 no.3:749-751 S '64. (MIRA 17:10)

1. Astrakhanskiy meditsinskiy institut. Predstavleno akademikom A.N. Bakulevym.

S/183/60/000/003/011/016/XX
B004/B067

AUTHORS: Serkov, A. T., Konkin, A. A., Solov'yeva, N. I., and Fedorova, N. N.

TITLE: Study of Drawing in Spinning Viscose Fibers

PERIODICAL: Khimicheskiye volokna, 1960, No. 3, pp. 31-33

TEXT: The authors point to the great importance of plasticizing drawing to the strength of viscose fibers. They attempted to determine the conditions under which maximum drawing can be attained. In the present paper they describe their study of the effect of the γ_{CS_2} content of residual xanthogenate in the fiber, and its structure in the freshly spun state on the capability of being drawn. The effect of residual xanthogenate was studied by increasing the distance between the spinneret and the point where drawing sets in from 1 to 15 m. In this connection, γ_{CS_2} decreased from 11.0 to 6.0. Nevertheless, no changes were observed in the maximum drawing and in the mechanical properties of the fiber. In a second test

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series, the number of apertures of the spinneret was varied between 300 and 100, their diameter between 0.05 and 0.10 mm. In the former case, the thread number was 6600, and γ_{CS_2} was equal to 11, in the latter case, the thread number was equal to 2200, γ_{CS_2} = 14. Also in this case, maximum drawing was independent of γ_{CS_2}. Experiments made with four precipitating baths (composition in g/l: bath 1: 15 H_2SO_4, 400 $(NH_4)_2SO_4$; bath 2: 750 H_2SO_4, 45 $(NH_4)_2SO_4$; bath 3: 140 H_2SO_4, 40 $ZnSO_4$, 320 Na_2SO_4; bath 4: 100 H_2SO_4, 80 $ZnSO_4$, 210 Na_2SO_4) also proved that no relation exists between γ_{CS_2} and the capability of being drawn. Hence, the authors conclude that the capability of being drawn depends on the degree of structural inhomogeneity of the fiber, i.e., on its content of crystalline and amorphous fraction, as well as on its orientation, and the density of the macromolecule packets. There are 3 tables and 3 references: 1 Soviet, 1 US, and 1 British.

ASSOCIATION: VNIIV (All-Union Scientific Research Institute of Synthetic Fibers)

15(4)

S/183/59/000/06/011/027
B004/B007

AUTHORS: Serkov, A. T., Fedorova, N. N., Kotomina, I. N.

TITLE: The Dependence of the Structure of the Fiber on the Characteristic Values of the Viscose

PERIODICAL: Khimicheskiy volokna, 1959, Nr 6, pp 37 - 39 (USSR)

ABSTRACT: The authors investigated the influence of viscose ripening, of its α-cellulose content, and of the lye concentration upon the structure of the fiber. Spinning of the fiber was carried out in an acid-lye bath and in an ammonium-sulfate bath. For the purpose of eliminating the influence of mechanical factors on fiber formation, spinning and the further treatment of the fibers was carried out without drawing. Determination of the specific weight of the fiber was carried out according to P.H. Hermans (Ref 1), of swelling in water according to E. Hubert (Ref 8), and of the structure of its cross section (percentage of the shell in the total cross section) by coloring by means of a direct dye (anil pure blue). Table 1 shows the influence

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The Dependence of the Structure of the Fiber on the Characteristic Values of the Viscose

S/183/59/000/06/011/027
B004/B007

exerted by the ripening of the viscose, table 2 the influence of the NaOH-content, and table 3 the influence exerted by the α-cellulose content of the viscose upon these characteristic values. The authors obtained the following results: With increasing ripening and increasing α-cellulose content of the viscose, the swelling of the fiber in water decreases. The least swelling was found, in accordance with N.V. Mikhaylov and N.N. Zav'yalova (Ref 11) with a 6 - 8% NaOH content in the viscose solution. The lowest specific weight was obtained during spinning in an acid-salt bath at 30°, an NaOH-content of 6% and a 16 hours old viscose. In fibers with a low specific weight the percentage of the fiber sheath in the total cross section is higher. There are 3 tables and 11 references, 3 of which are Soviet.

ASSOCIATION: VNIIV-Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna (All-Union Scientific Research Institute for Synthetic Fibers)

Card 2/2

TEPLINSKAYA, T.K.; FEDOROVA, N.N.; ROZENTSVEYG, S.A.

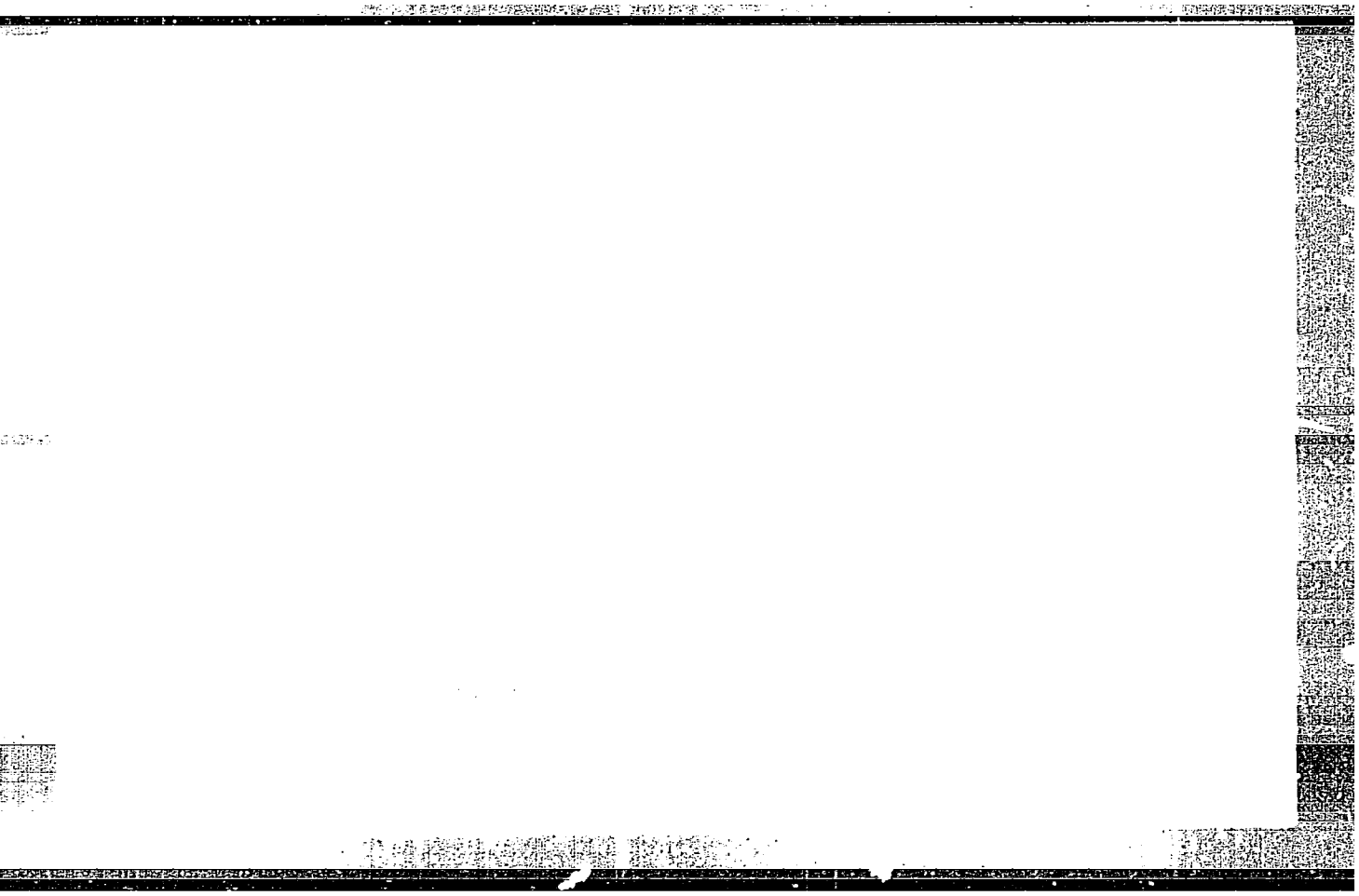
Nature of the product of the second anodic process on the iron electrode of an alkaline accumulator. Zhur. fiz. khim. 38 no.9:2176-2181 S '64. (MIRA 17:12)

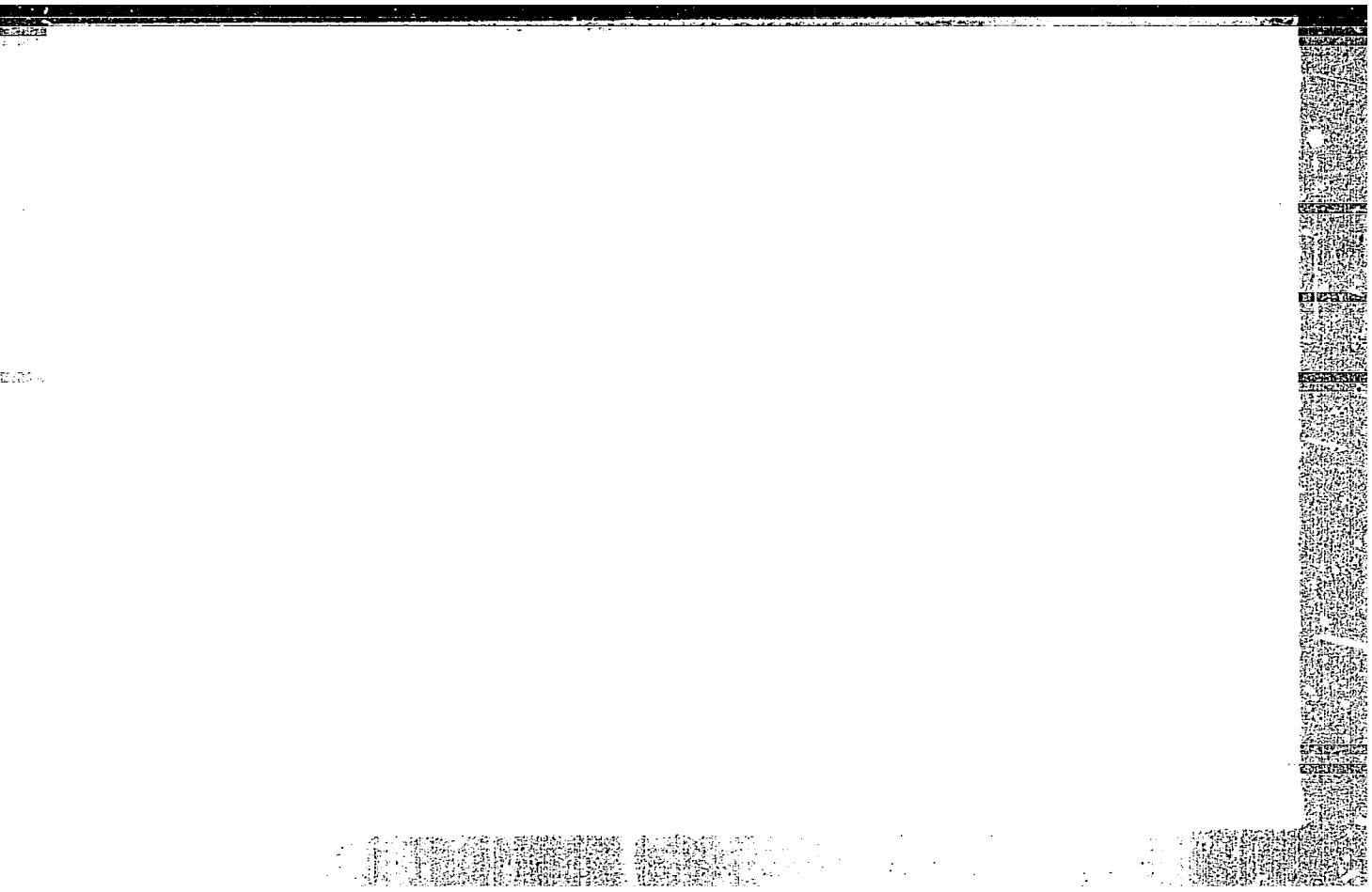
1. Nauchno-issledovatel'skiy akkumulyatornyy institut, Leningrad.

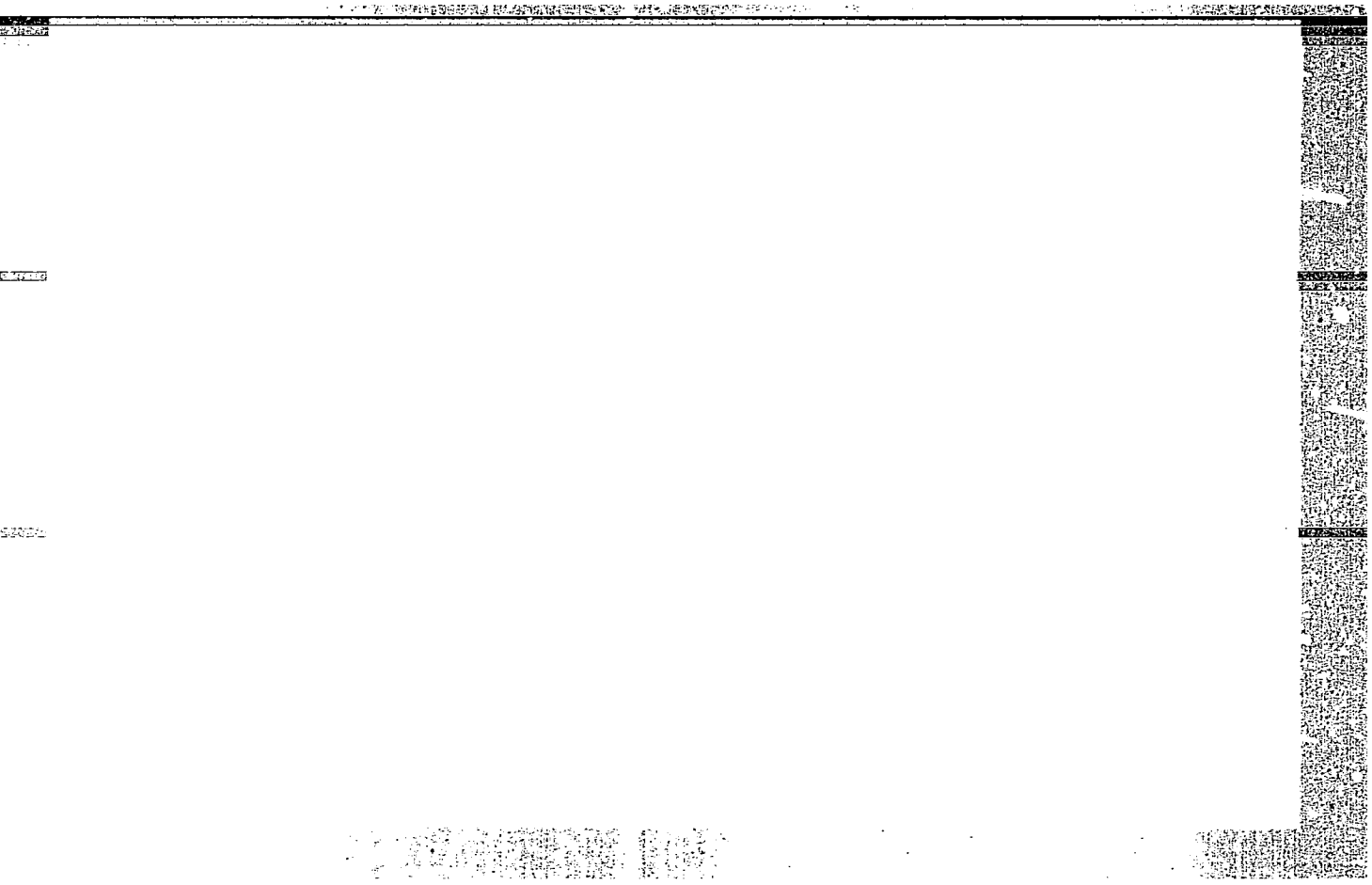
USSR

The isomorphism of compounds with a covalent bond. N. A. Goryunova and N. N. Fedorova (Leningrad Phys.-Tech. Inst., Acad. Sci. U.S.S.R.). *Doklady Akad. Nauk S.S.S.R.* 90, 1063-4(1953).—Data are presented on the isomorphism of binary compds. whose bonds differ in their degree of covalency in the synthesis of ternary (pseudo-binary) compds., and on the ability of ternary compds. to bring about a β-α transition in Sn. The exptl. results showed that the less-covalent compds. form solid solns. (CdTe and ZnTe, CdTe and HgTe) but the more-covalent compds. do not (InSb, InAs). The solid solns. nCdTe-nZnTe, nCdTe-nHgTe are isomorphous with [illegible]

[illegible]







USSR / Virology. Human and Animal Viruses. Rickett- E
siae.

Abs Jour: Ref Zhur-Biol., No 5, 1959, 19374.

Author : Sokolova, N. F.; Fedorova, N. N.
Inst : Not given.
Title : Further Study on the Resistance of the Rickettsiae Burneti to the Action of Certain Chemical Substances.

Orig Pub: Zh. mikrobiol., epidemiol. i immunobiol., 1958, No 8, 81-85.

Abstract: Rickettsiae burneti are resistant to the fifteen minute action of formalin solution (1% formaldehyde, five minute action of 5% solution of CH_3COOH, 5% solution of NaOH and 3% solution of H_2O_2. Solution of formalin (2% formaldehyde), 10% solution of NaOH and 5% solution of H_2O_2 kill the Rickettsiae.

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#

14
END

#2033

AUTHORS: Goryunova, N. A., Fedorova, N. N. SOV/57-58-8-9/37
Sokolova, V. I.

TITLE: On Indium Phosphide With Stoichiometrical and Non-Stoichiometrical Composition (O fosfide indiya stekhiometricheskogo i nestekhiometricheskogo sostavov)

PERIODICAL: Zhurnal tekhnicheskoy fiziki, 1958, Nr 8, pp. 1672 - 1675 (USSR)

ABSTRACT: This is an attempt to determine the width of the homogeneous zone in InP, at least in first approximation, by determining the lattice constants of indium phosphide, when an excess of one or the other component is introduced into the indium phosphide. Moreover, it was intended to obtain reliable data on the identity period of indium phosphide which was produced from pure substances. The indium used in the synthesis contained only negligible traces of copper, according to data from spectral analysis. The phosphorus which was purified by repeated washing with hydrochloric acid contained copper, aluminum, iron, magnesium, and silicon in quantities of a few thousands of a percent. Bismuth, antimony, lead, tin, zinc,

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and arsenic could not be observed. According to data from spectral analysis all samples were produced by an immediate combined melting of the components. The procedure in the production of indium phosphide samples with an excess of indium or of phosphorus is described. The stoichiometrical InP was produced by two methods, which are described in short. The samples with an indium excess all exhibited a picture typical of two-phase substances. The samples with a phosphorus excess also yielded the picture of a two-phase substance. The phosphorus veins and the inclusions had a red color. No indications of a second phase were found in the polished sections of stoichiometrical indium phosphide samples. In the X-ray analysis a simple and a refined powder method were applied. The refined X-ray diagram was taken with a Cu K_α-radiation according to two methods. The evidence presented shows that the identity period of indium phosphide is equal to 5,8693 Å and that it does not vary within a range of $\pm$ 0,0006 Å, if an excess of the one or the other component is introduced. There is every indication that the width of the homogeneous zone

On Indium Phosphide With Stoichiometrical and Non-Stoichiometrical Composition

57-58-8-9/37

in indium phosphide is very narrow. Professor D. N. Nasledov and Professor B. F. Ormont discussed the results of the work with the authors. There are 2 figures, 1 table, and 19 references, 4 of which are Soviet.

ASSOCIATION: Leningradskiy fiziko-tekhnicheskiy institut AN SSSR (Leningrad Physical and Technical Institute, AS USSR)
Nauchno-issledovatel'skiy akkumulyatornyy institut (Scientific Research Institute of Accumulators)

SUBMITTED: October 26, 1957

Card 3/3

GORYUNOVA, N.A.; FEDOROVA, N.N.

Solid solutions in the system ZnSe - GaAs. Fiz. tver. tela 1 no.2: 344-345 F '59. (MIRA 12:5)

1. Leningradskiy fiziko-tekhnicheskiy institut AN SSSR i Vsesoyuznyy nauchno-issledovatel'skiy akkumulyatornyy institut pri Gosplane SSSR.
(Solutions, Solid)

FEDOROVA, N.N.

Briquetting of oxidized nickel ores. TSvet.met. 34 no.10:80 O '61. (MIRA 14:10)

(Nickel ores) (Briquets)

FEDOROVA, N.N.

Principles of hydraulic model studies of river channels as used in some foreign laboratories. Trudy GGI no.94:129-135 '62. (MIRA 15:7)
(Hydraulic models)

FEDOROVA, N.N.; AGUF, I.A.; LEVINZON, L.M.; DASOYAN, M.A.

X-ray diffraction phase analysis of mixtures of PbO_2 modifications. Zav. lab. 30 no.6:727-728 '64 (MIRA 17:8)

FEDOROVA, N.N.

X-ray photographs of current-carrying electrodes. Zav. lab. 30 no.11:1370 '64 (MIRA 18:1)

1. Nauchno-issledovatel'skiy akkumulyatornyy institut.

RUSIN, A.I., inzh.; DASOYAN, M.A., kand.tekhn.nauk; FEDOROVA, N.N., inzh.

Phase composition of the positive electrodes of lead storage batteries. Elektrotekhnika 36 no.6:63 Je '65.

(MIRA 18:7)

FEDOROVA, N.P.

Our experience of corn cultivation in the agrometeorological service. Meteor.i gidrol. no.8:43-45 Ag '56. (MLRA 9:11)
(Corn (Maize))

FEDOROVA, N.S., kandidat meditsinskikh nauk.

Errors in the diagnosis of cancer of the lower lip. Stomatologiia, no.6:32-35 N-D '55. (MIRA 9:5)

1. Iz kafedry khirurgicheskoy stomatologii (zav.-prof. S.F. Kosykh) stomatologicheskogo fakul'teta Molotovskogo meditsinskogo instituta (dir.-prof. I.I. Kositsyn)
(LIPS, neoplasms
diag. errors in cancer of lower lip)

FEDOROVA, N.S.

Technic of surgical treatment of carcinoma of the lower lip.
Khirurgiia, 33 no.1:107-111 Ja '57 (MLRA 10:4)

1. Iz kafedry khirurgicheskoy stomatologii i kliniki
chelyustno-litsevoy khirurgii (zav.-prof. S.F. Kosykh) Molotovskogo
meditsinskogo stomatologicheskogo instituta (dir. M.V. Kostylev)
(LIPS, neoplasms
of lower, surg. technic) (Rus)

FEDOROVA, N.S., kand. med. nauk

Late results of surgery in cancer of the lower lip. Stomatologiia 38 no.2:42-45 Ap '59. (MIRA 12:7)

1. Iz kafedry khirurgicheskoy stomatologii (i.o. zav. - dotsent A. F. Ivanov) Permskogo meditsinskogo instituta (dir. - prof. I.I. Kositsyn).
(LIPS--CANCER)

FEDOROVA, N. S.

Influence of the hydrodynamics of the anodic process on the concentration polarization taking place during the anodic solution of copper. Report No.1. Trudy MKHTI no.26:34-39 '59. (MIRA 13:9)

(Copper) (Polarization (Electricity))

FEDOROVA, N. S.

Influence of the hydrodynamics of the anodic process on the concentration polarization taking place during the anodic solution of copper. Report No. 2. Trudy MKHTI no.26:40-43-459. (MIRA 13:9)

(Copper) (Polarization (Electricity))

AID Nr. 986-1 10 June

ANODIZING OF ALUMINUM IN FLUORIDE SOLUTIONS (USSR)

Fedoreva, N. S. Zhurnal fizicheskoy khimii, v. 37, no. 4, Apr 1963, 883-885.
S/076/63/037/004/017/029

The Moscow Institute of Chemical Technology imeni D. I. Mendeleyev has studied the [illegible] solution of films obtained by anodic polarization of aluminum in aqueous solutions of fluorides, KF, NaF, or NH_4F. X-ray diffraction patterns showed that, depending on electrolyte, the films consisted of K_3AlF_6, Na_3AlF_6, or $3NH_4F \cdot AlF_3$. In some films small amounts of AlF_3 were also found. Films obtained in KF and NH_4F electrolytes were dense, tightly adhering to metal; those obtained in NaF were porous and loose. The K_3AlF_6 and $3NH_4F \cdot AlF_3$ films were found to have dielectric properties. [WW]

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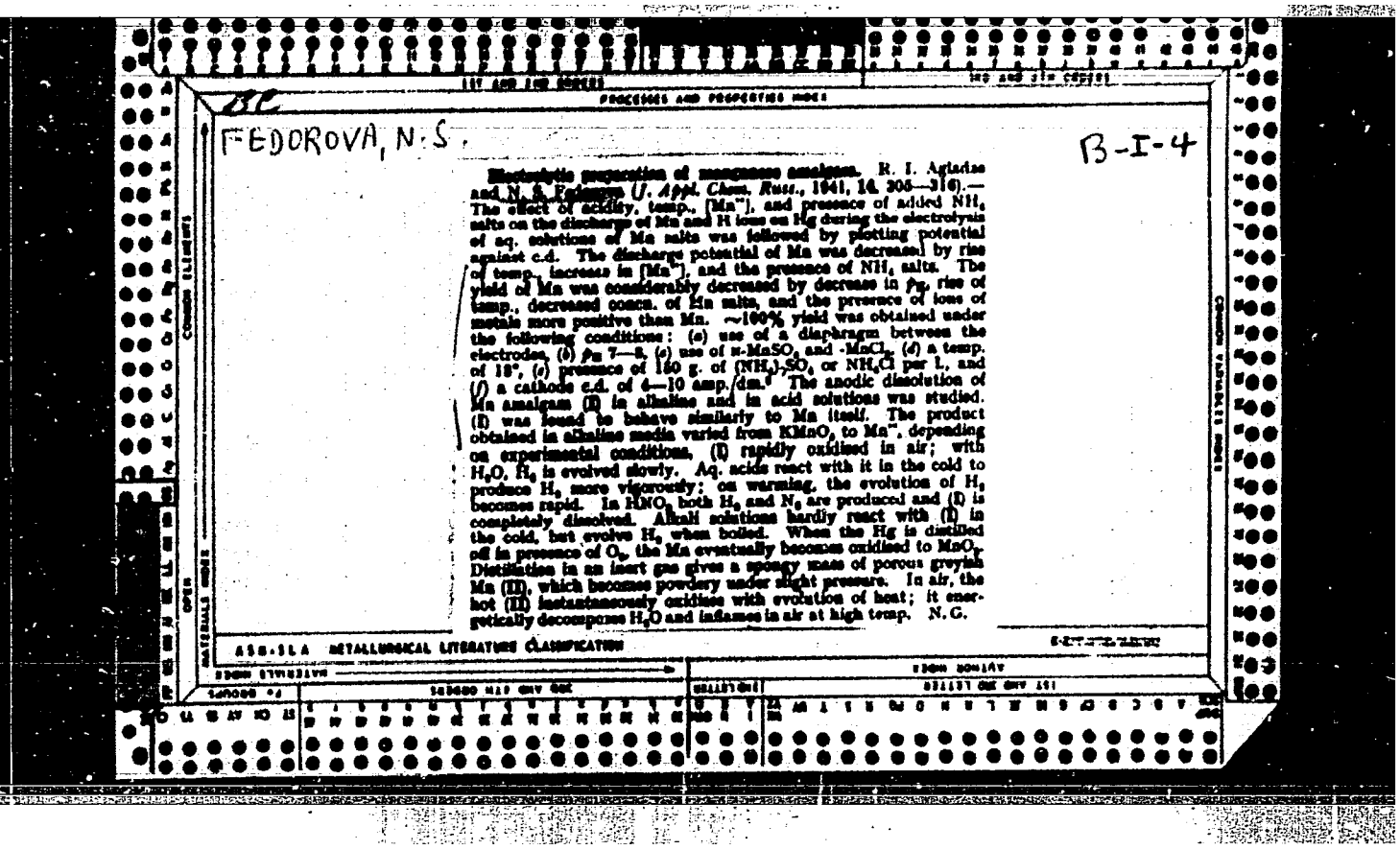

BC

FEDOROVA, N.S.

B-I-4

Electrolytic preparation of manganese amalgam. R. I. Agladze and N. S. Fedorova (*J. Appl. Chem. Russ.*, 1941, 14, 305—316).—The effect of acidity, temp., [Mn^{++}], and presence of added NH_4 salts on the discharge of Mn and H ions on Hg during the electrolysis of aq. solutions of Mn salts was followed by plotting potential against c.d. The discharge potential of Mn was decreased by rise of temp., increase in [Mn^{++}], and the presence of NH_4 salts. The yield of Mn was considerably decreased by decrease in p_H, rise of temp., decreased concn. of Mn salts, and the presence of ions of metals more positive than Mn. ~100% yield was obtained under the following conditions: (*a*) use of a diaphragm between the electrodes, (*b*) p_H 7—8, (*c*) use of *N*-$MnSO_4$ and -$MnCl_2$, (*d*) a temp. of 18°, (*e*) presence of 160 g. of $(NH_4)_2SO_4$ or NH_4Cl per l., and (*f*) a cathode c.d. of 6—10 amp./dm.^{2} The anodic dissolution of Mn amalgam (I) in alkaline and in acid solutions was studied. (I) was found to behave similarly to Mn itself. The product obtained in alkaline media varied from $KMnO_4$ to Mn^{++}, depending on experimental conditions. (I) rapidly oxidised in air; with H_2O, H_2 is evolved slowly. Aq. acids react with it in the cold to produce H_2 more vigorously; on warming, the evolution of H_2 becomes rapid. In HNO_3 both H_2 and N_2 are produced and (I) is completely dissolved. Alkali solutions hardly react with (I) in the cold, but evolve H_2 when boiled. When the Hg is distilled off in presence of O_2, the Mn eventually becomes oxidised to MnO_2. Distillation in an inert gas gives a spongy mass of porous greyish Mn (II), which becomes powdery under slight pressure. In air, the hot (II) instantaneously oxidises with evolution of heat; it energetically decomposes H_2O and inflames in air at high temp. N. G.

ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION

FEDOROVA, N. S.

FEDOROVA, N. S. -- "A Study of Hydrogen Supertension on Certain Electrodes in the Electrolytic Production of Chlorine." Min Higher Education USSR. Main Administration of the Technological Vuzes. Moscow Order of Lenin Chemicotechnological Inst imeni D. I. Mendeleyev. Moscow, 1955. (Dissertation for the Degree of Candidate in Technical Sciences)

SO: Knizhnaya Letopis', No 1, 1956

76-32-3-3/43

AUTHOR: Fedorova, N. S.

TITLE: On the Connection Between Hydrogen Overvoltage on Alloys and Their Interatomic Distances (O svyazi mezhdu perenapryazheniyem vodoroda na splavakh i mezhatomnymi rasstoyaniyami v nikh)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1958, Vol 32, Nr 3, pp 506-511 (USSR)

ABSTRACT: The phenomenon already mentioned in the title was observed by N. Ye. Khomutov (Ref 1), and independently from him by Leidheiser (Ref 2), who both found an overvoltage minimum at atomic distances of 2,76 - 2,74 Å. In this connection, Khomotov (Ref 3) gives some physical explanations, which are experimentally confirmed. V. G. Inzhechik (Ref 4) investigated the cathode potentials of little alloyed binary alloys of iron with vanadium, tungsten and molybdenum, whilst Raeder and Brun (Ref 7) investigated hydrogen overvoltages on alloys. Himmler (Ref 9) was occupied with overvoltage measurements on silver alloys in connection with the palladium content. As in all investigations, a connection between the overvoltage and the interatomic distance was found for alloys, and analogously for pure metals. It still has to be explained,

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On the Connection Between Hydrogen Overvoltage on Alloys and Their Inter-atomic Distances

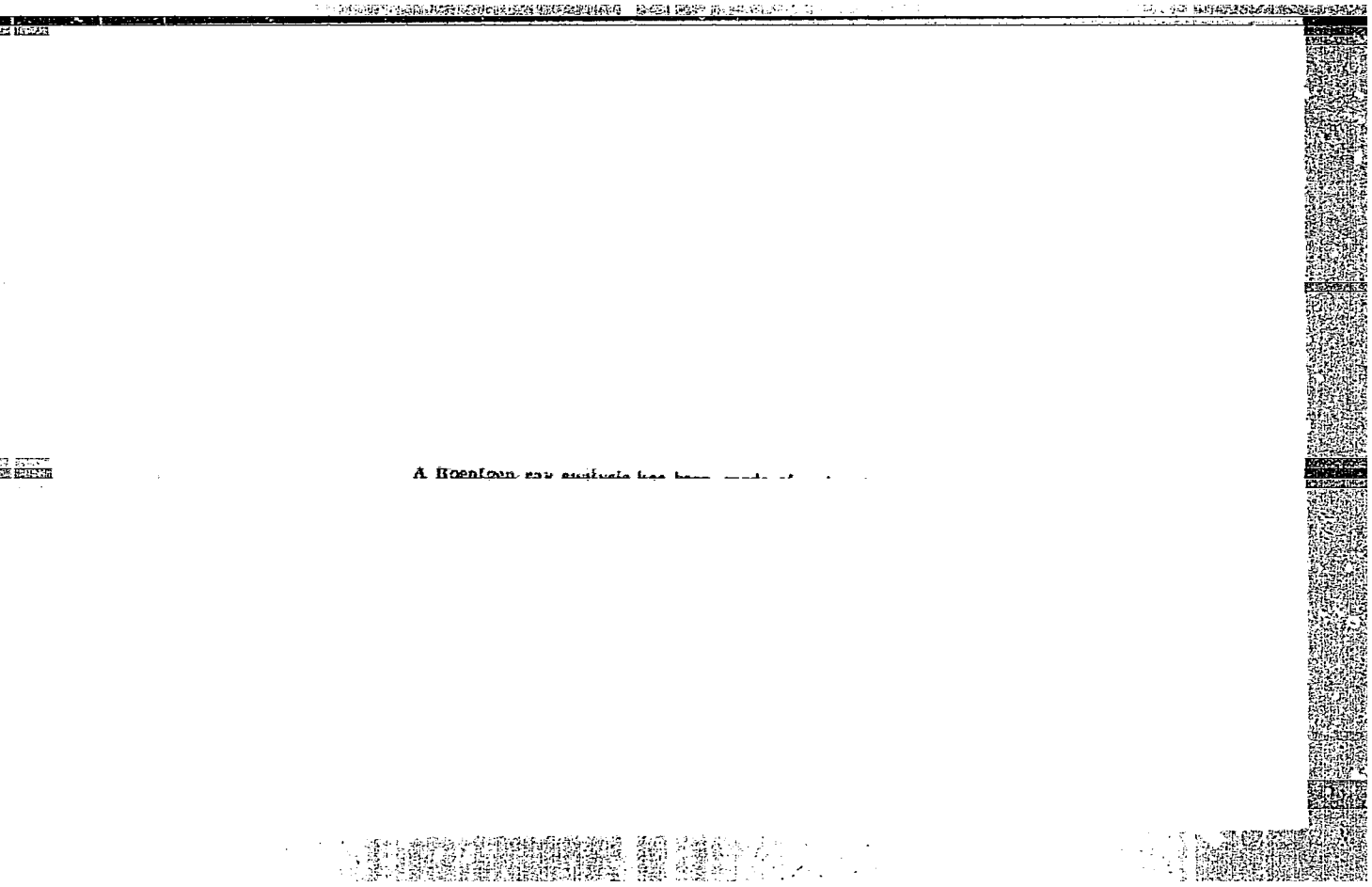
why this does not occur on a number of alloys. The present paper investigated the hydrogen overvoltages on galvanic iron-nickel alloys, whereby 6 alloys (with 9, 18, 31, 52, 64 and 88 % nickel), as well as electrodes with galvanic coatings of pure nickel and pure iron were examined. The measurements were performed in air-saturated solutions according to Hickling and Salt (Ref 11). The first, graphically represented determinations show that the potential of hydrogen formation changes corresponding to the composition of alloys. However, this only holds for current densities exceeding 1600 A/cm^2, whilst at lower current densities, the polarization curves for different alloys change their position relative to each other. The dependence of the potential on the logarithm of the current density corresponds to the formula according to Tafel, whereby the constant varies corresponding to the alloy and to the solution, and furthermore, as was observed, it is greater at higher current densities, than at lower ones. By means of X-ray analyses, a connection between the hydrogen formation and the structure of the crystal lattice of the alloys was observed. A calculation according to the method of G. B. Bokiy (Ref 13) confirmed that the interatomic

On the Connection Between Hydrogen Overvoltage on Alloys and Their Interatomic Distances

distances change according to the composition (in the concrete case) of the alloy from 2.47 - 2.58 Å. Corresponding to the investigations of N. Ye. Khomutov, the hydrogen overvoltage is a function of the interatomic distance in the metal with a minimum at 2.76 Å. If this distance is related to the alloy, the presence of iron is to be assumed. Therewith some obtained results are explained, and an alloy with 18 % nickel (and not 31%) shows the lowest overvoltage value. Data on different alloy compositions are given. There are 3 figures and 13 references, 8 of which are Soviet.

ASSOCIATION: Khimiko-tekhnologicheskiy institut im. D. I. Mendeleyeva (Institute of Chemical Technology imeni D. I. Mendeleyev)

SUBMITTED: May 29, 1956



SOV/76-32-6-3/46

AUTHOR: Fedorova, N. S.

TITLE: An X-Ray Analysis of Galvanic Iron-Nickel Alloys (Rentgenostrukturnoye issledovaniye gal'vanicheskikh zhelezo-nikelevykh splavov)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol. 32, Nr 6, pp. 1211 - 1213 (USSR)

ABSTRACT: The investigations by F.Marshak and D.Stepanov (Ref 2) proved that the above mentioned alloys occur as solutions. This, however, does not agree with other data. In the present paper alloys with a content of 9,18,31,52,64 and 88% of nickel were investigated. From the experimental part proceeds, among other things, that the X-ray structural analyses were conducted according to the method by Debye-Shearer with an equipment of the type URS-70-K1. The results showed that the parameters of the galvanic alloy differ somewhat from those of the thermal ones. Two phases were found to exist. It was found that alloys with a content of from 9 - 18% of nickel crystallize in a cubical lattice, alloys with 52,64 and 88% of nickel in a face-centered lattice, the alloy with 31% of nickel consists of a mixture of two phases, a cubic centered one and a face-centered

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one. The assumption, that the alloy with 30-50% of nickel represents a chemical compound of the type Fe_2Ni was not substantiated by the X-ray analyses. On the other hand it was found that the galvanic alloys represent a solution of one component in the other. In the microsection surface only the grain boundaries could be seen and no differences in the etching were observed. The limit of resistivity of the properties of the alloys with a content of from 30-50% of nickel are explained by the presence of two phases with a different crystalline structure. There are 2 tables and 6 references, 4 of which are Soviet.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut im.D.I.Mendeleyeva (Moscow Chemical and Technological Institute imeni D.I Mendeleyev)

SUBMITTED: May 29, 1956

An X-Ray Analysis of Galvanic Iron-Nickel Alloys SOV/76-32-6-3/46

1. Iron-nickel alloys—X-ray analysis 2. Iron-nickel alloys—Phase studies
3. Iron-nickel alloys—Test results 4. Iron-nickel alloys—Crystal structure
5. Iron-nickel alloys—Electrical properties

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S/153/60/003/006/006/009
B103/B206

AUTHOR: Fedorova, N. S.

TITLE: X-ray structural analysis of protective films on magnesium

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, v. 3, no. 6, 1960, 1067-1071

TEXT: The author reports on X-ray studies of protective films which she produced during anodizing of pure magnesium in KF solutions under various electrolysis conditions. Data in publications (Refs. 1 to 4) on the composition of such films are fragmentary and contradictory. The films were scraped off the magnesium plate, tamped into a 6 to 7 mm wide celluloid capillary, and studied and measured by the Debye-Scherrer powder pattern method in the X-ray apparatus УРС-70-К1 (URS-70-K1) with a valve БСВ-4 (BSV-4) and a comparator ИЗА-2 (IZA-2). The author concludes from the measurements that when anodizing magnesium in a KF solution (300 g/l) with a current density of 5 a/dm^2 and at 20°C, the film also contains the compound $KMgF_3$ (Ref. 8), besides MgF_2. The structure of the electro-

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X-ray structural analysis of...

chemically prepared $KMgF_3$ agrees with that of the thermally prepared one. The author thus established that components are contained in the film, which are analogous to the melting-point diagram in the range between MgF_2 and $KMgF_3$. The author further proved that at current densities of 0.5 - 35 a/dm^2 and amounts of electricity of from 2 to 50 a · min/dm^2, MgF_2, $KMgF_3$ and MgO are always contained in the film. Films which developed under stirring of the electrolyte contained, however, MgF_2 only. Additions of surface-active substances such as ethylene glycol (50 ml/l), thiourea (0.2 g/l) and gelatin (2 g/l) did not form chemically pure $KMgF_3$. The author concludes from her results that the formation of $KMgF_3$ is a secondary, non-electrochemical process of interaction between MgF_2 and KF, which proceeds in the solid phase. The formation of MgF_2 is apparently no electrochemical process either. MgF_2 is, however, formed sooner than $KMgF_3$. The author thanks Professor S. V. Gorbachev for valuable advice.

Card 2/3

S/153/60/003/006/006/009
B103/B206

X-ray structural analysis of...

There are 2 figures, 1 table, and 8 references: 3 Soviet-bloc and 4 non-Soviet-bloc.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut im. D. I. Mendeleyeva; Kafedra fizicheskoy khimii (Moscow Institute of Chemical Technology imeni D. I. Mendeleyev; Department of Physical Chemistry)

SUBMITTED: April 2, 1959

Card 3/3

LABUTIN, A.L.; FEDOROVA, N.S.

Rubber coating by means of flame spraying with thiokol. Kauch. i rez. 22 no.9:27-30 S '63. (MIRA 16:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S.V. Lebedeva.

FEDOROVA, N.S.

X-ray diffraction study of fluoride films on aluminum. Zhur. fiz. khim. 37 no.4:883-885 Ap '63. (MIRA 17:7)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni D.I. Mendeleyeva.

FEDOTOVA, O.Ya.; SHTIL'MAN, M.I.; LOSEV, I.P. [deceased]

Cyanoethylation of diamines. Part 6: Salts of di-cyanoethylhexamethylenediamine and dicarboxylic acids. Zhur. ob. khim. 34 no.12:4007-4010 D '64 (MIRA 18:1)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni D.I. Mendeleyeva.

ACCESSION NR: AP4019321 S/0076/64/038/002/0372/0374

AUTHOR: Khachaturyan, O. B. (Moscow); Fedorova, N. S. (Moscow)

TITLE: Natural convection vs recharging rate in reversible oxidation-reduction systems

SOURCE: Zhurnal fizicheskoy khimii, v. 38, no. 2, 1964, 372-374

TOPIC TAGS: electrolytic convection, oxidation reduction electrolysis, ferri ferro electrolysis, electrolytic recharging rate, iron ion

ABSTRACT: After reviewing a considerable number of studies dealing with recharge in reversible oxidation-reduction processes, the authors define their purpose as an investigation in how far natural convection influences the rate of anodic and cathodic process during recharge of simple and complex iron ions. For their tests they used the IAB-451 shadow instrument to determine (by changing refraction) the viscosity and distribution of upward and downward flows. It was found that recharge of iron ions is accompanied by natural convection. To characterize the amount of convective summand of polarization, it is proposed to use the amount of hydraulic resistance of friction, ΔP, which, in the given case, only depends

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ACCESSION NR: AP4019521

on the viscosity of the solution flowing along the electrode. In the recharge of complex iron ions, the convective summands of polarization in the anodic and cathodic processes are equal. A considerable difference in the viscosity of the ferro- and ferri-sulfate solutions can explain the lag of the anodic behind the cathodic process when recharging in these solutions.

ASSOCIATION: Moskovskiy khimiko tekhnologicheskiy institut im. D. I. Mendeleyeva (Moscow Chemical Engineering Institute)

SUBMITTED 01Feb63 DATE ACQ: 31Mar64 ENCL: 00

SUB CODE: CH NO REF SOV: 009 OTHER: 000

Card 2/2

FEDOROVA, N.S. (Moscow)

Convective stream concentration in the anodic dissolution of cadmium. Zhur. fiz. khim. 18 no.3:287-289 '44.

(MIRA 17:8)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni Mendeleyeva.

KHACHATURYAN, O.B.; FEDOROVA, N.S.

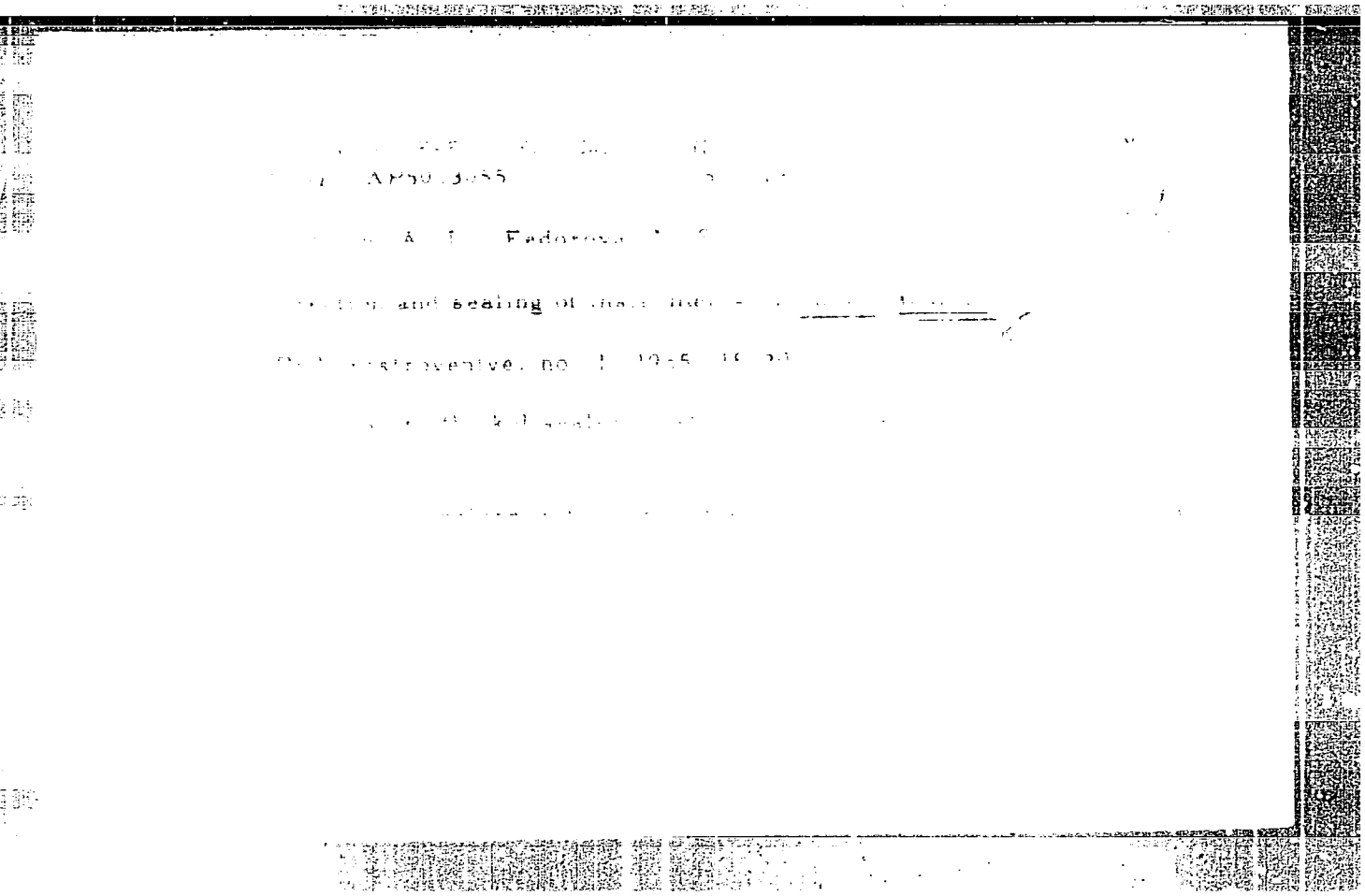
Effect of natural convection on the recharging rate in reversible redox systems. Zhur. fiz. khim. 38 no.2:372-374 F '64. (MIRA 17:8)

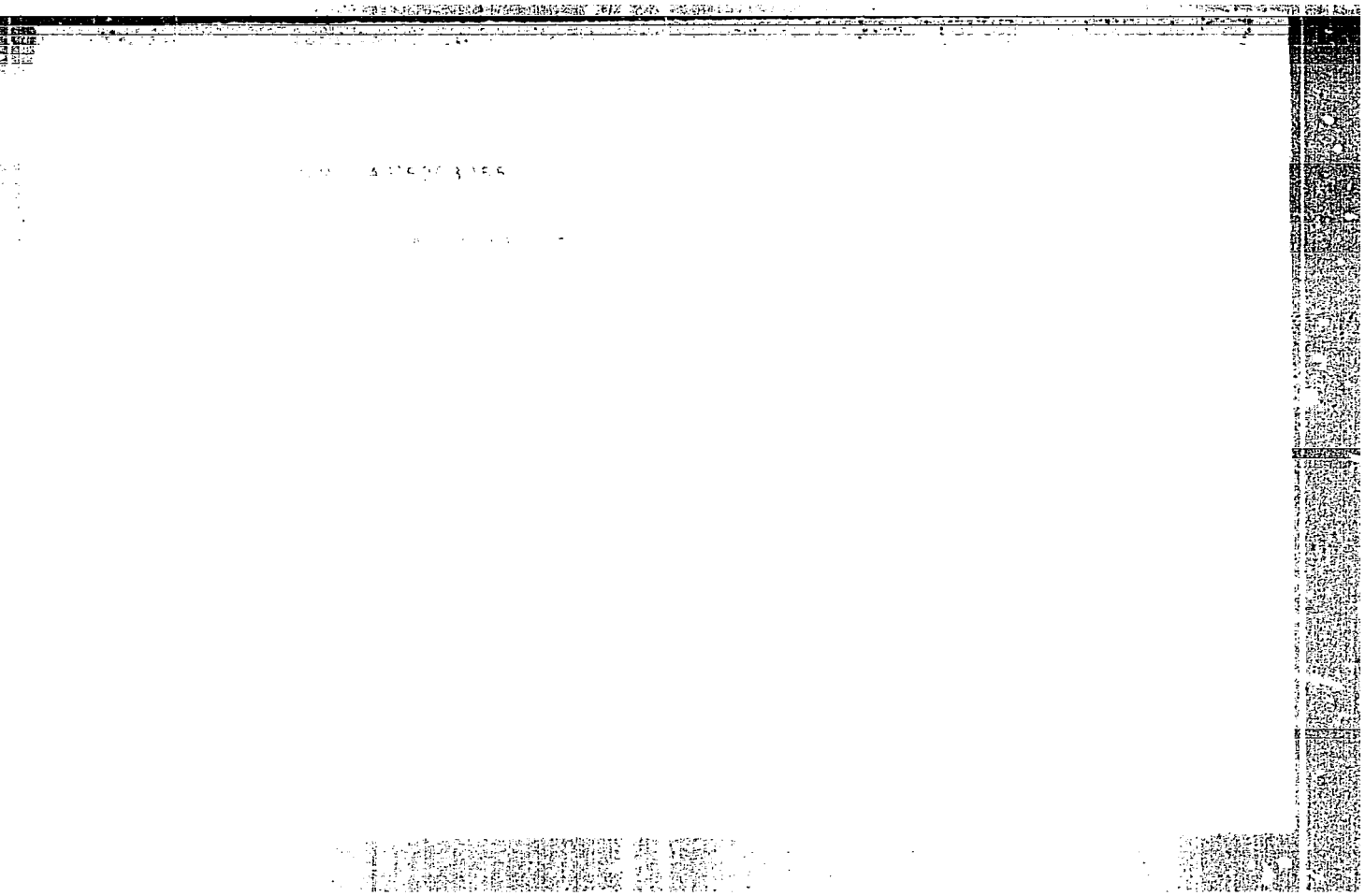
1. Moskovskiy khimiko-tekhnologicheskiy institut imeni Mendeleyeva.

KULESHOVA, N.M.; FEDOROVA, N.S.

Concentration in a convective stream during anodic dissolution of zinc and copper. Trudy MKHTI no.44:108-114 '64.

(MIRA 18:1)





LABUTIN, A.L.; FEDOROVA, N.S.

Protective coatings from thiocol pastes applied without heating.
Gidroliz. i lesokhim. prom. 18 no.5:8-10 '65. (MIRA 18:7)

FEDOROVA, N.S.; KULESHOVA, N.M.

Effect of additions on the thermal effect of the process of anodic dissolution of copper. Zhur. fiz. khim. 39 no.4:986-989 Ap '65. (MIRA 19:1)

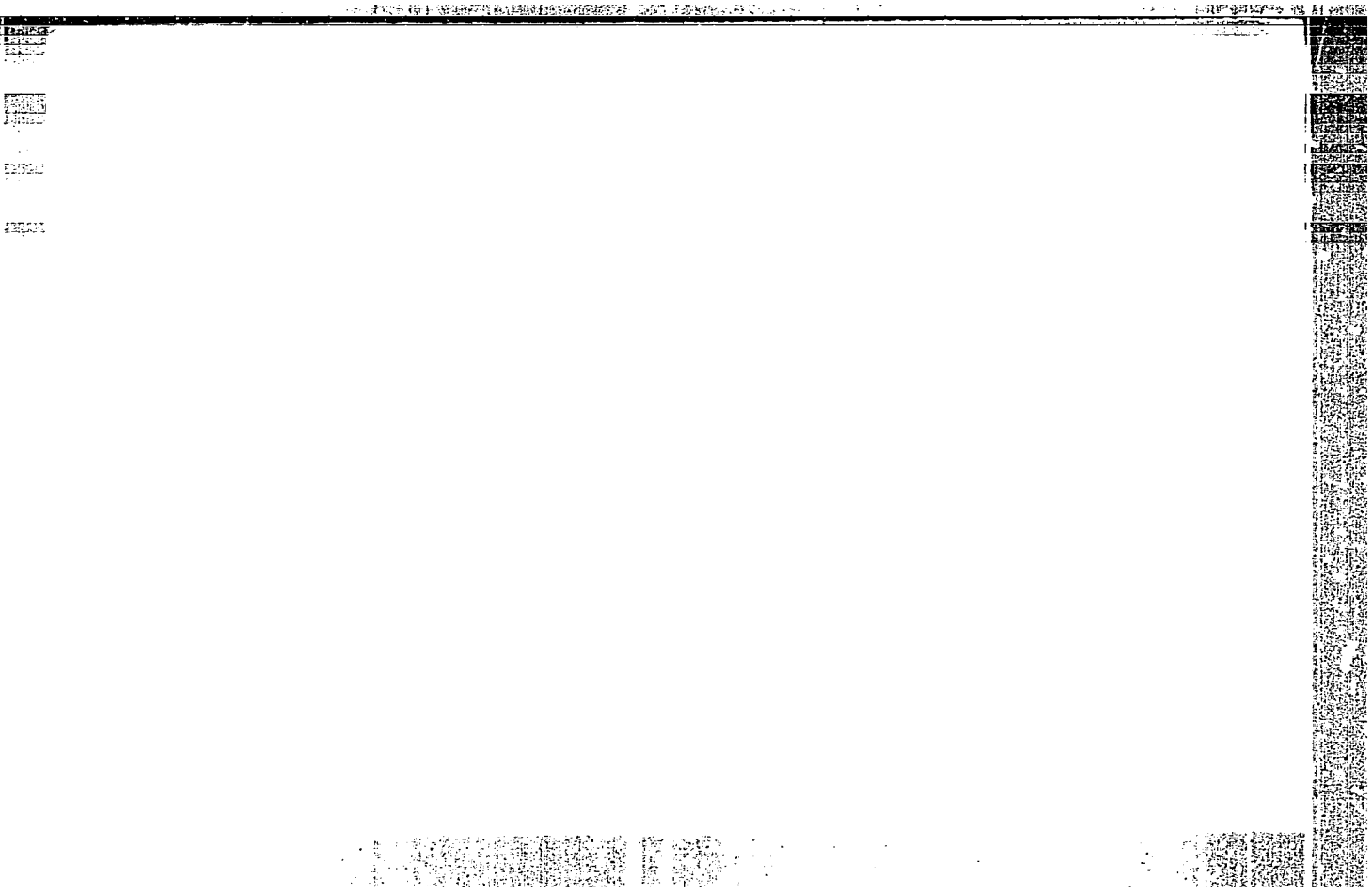
1. Khimiko-tekhnologicheskiy institut imeni Mendeleyeva. Submitted Feb. 8, 1964.

L 25631-65 EPF(c)/EPR/EPA(s)-2/EWP(j)/EW[illegible](m)/EWP(b)/T/EWA(d)/EWP(v)/ EWP(t) Pc-4/Pr-4/Ps-4/Pt-10 RM/WW/JD/[illegible]

ACCESSION NR: AR5000710 S/0081/6[illegible]/000/017/S071/S071

SOURCE: Ref. zh. Khimiya. Abs. [illegible]

AUTHOR: Labutin, A. L.; Fedorova, N. S.



FEDOROVA, N.V.

Early diagnosis of cancer of the cervix uteri. Lab.delo 6 no.3: 4-6 My-Je '60. (MIRA 13:7)

1. Stalingradskiy oblasnoy onkologicheskiy dispanser (glavnyy vrach - zasluzhennyy vrach RSFSR K.M. Petrov).
(UTERUS--CANCER)

FEDOROVA, N.V. (Kazan')

Our experience in dacryocystorhinostomy using Professor V.N.Arkhangel'skii's method. Kaz.med.zhur.no.3:89 My-Je'63. (MIRA 16:9)

(DACRYOCYSTITIS) (NOSE—SURGERY)

FEDOROVA, N.V.; YUNUSOVA, A.N.

Changes in the cholinergic reaction of the blood in dogs following a thyroidectomy. Nauch. trudy Kaz. gos. med. inst. 14:311-313 (MIRA 18:9)

1. TSentral'naya nauchno-issledovatel'skaya laboratoriya (zav. - kand. biolog. nauk S.V.Senkevich) Kazanskogo meditsinskogo instituta.

KRAYEVSKIY, A.A.; FEDOROVA, N.V.; ZOTOVA, S.A.; SARYCHEVA, I.K.; PREOBRAZHENSKA, N.A.

Methylene-divided polyyne compounds. Synthesis of 1,4-heptadine and 2, 5,8-undecatriyn-1-ol. Zhur.ob.khim. 34 no.2:552-554 F '64. (MIRA 17:3)

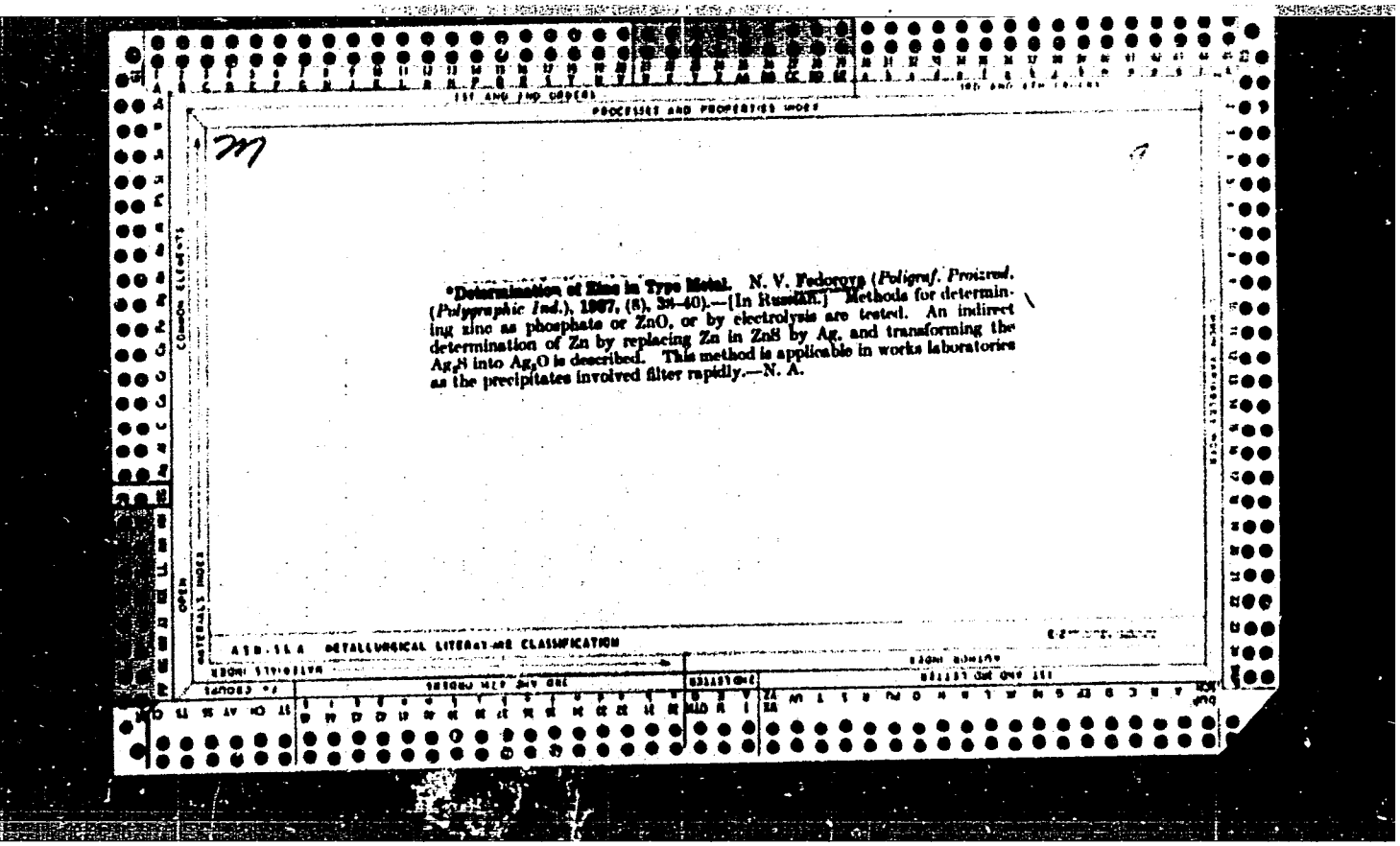
1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V.Lomonosova.

PROCESSES AND PROPERTIES INDEX

Dyeing with Varinmine Blue B and the color reserve 25

I. Petreshetnikov and N. Fedorova. *Khlopchatobum-azhnaya Prom.* 6, No. 12, 29-32(1936); *Chem. Zentr.* 1937, I, 3875.—The developing of the diazo compds. of Ph_2NH derivs. with naphthol AS takes place only in a neutral or faintly alk. medium and not in the presence of an excess of the acid diazo compd. It is therefore necessary that the proportion of acid in the diazo soln. and alkali in the naphthol be correct. The desired blue tint is not obtained if excess nitrite is used. Probably with excess nitrite a by-product is formed, i. e., *4-ethoxy-4-aminonitrosodiphenylamine*, whose diazo compd. gives a reddish tint with naphthol AS. The diazotization is carried out at 35-40°. W. A. Moore

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Determination of Zinc in Type Metal. N. V. Fedorova (*Poligraf. Proizvod. (Polygraphic Ind.)*, 1937, (8), 38–40).—[In Russian.] Methods for determining zinc as phosphate or ZnO, or by electrolysis are tested. An indirect determination of Zn by replacing Zn in ZnS by Ag, and transforming the Ag_2S into Ag_2O is described. This method is applicable in works laboratories as the precipitates involved filter rapidly.—N. A.

Analysis of black printing inks. M. M. Perel'man and N. V. Fedorova. *Poligraf. Proizvodstvo* 1937, No. 12, 24–8; *Chem. Zentr.* 1938, II, 1493.—A method is given for the analysis of black printing inks manufd. with a base of varnish of petroleum origin. First, the binding material is removed by repeated extn. with petr. ether in the presence of 80% HOAc by use of a centrifuge operating at 2000 r. p. m. The induline is sepd. from the lampblack by suspending the mixt. in HOAc and centrifuging. This is repeated 5–6 times with fresh portions of the acid. Finally, the resin is extd. from the lampblack with $CHCl_3$.

W. A. Moore